Park Air S4 IP Controller

V5-O-S4IPC-EL Issue 1

This module will:

- Introduce the features of the Park Air S4 IP Controller and how it used with ED-137 compliant radios
- Describe installation requirements
- Demonstrate the initial controller setup
- Demonstrate the setup sequence for connection to a network, radios and VoIP recorder
- Describe maintenance tasks

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1

Introduction

- Touch screen interface
- Designed to operate with ED-137 compliant radios
- Eg. Park Air T6 and M7 radios

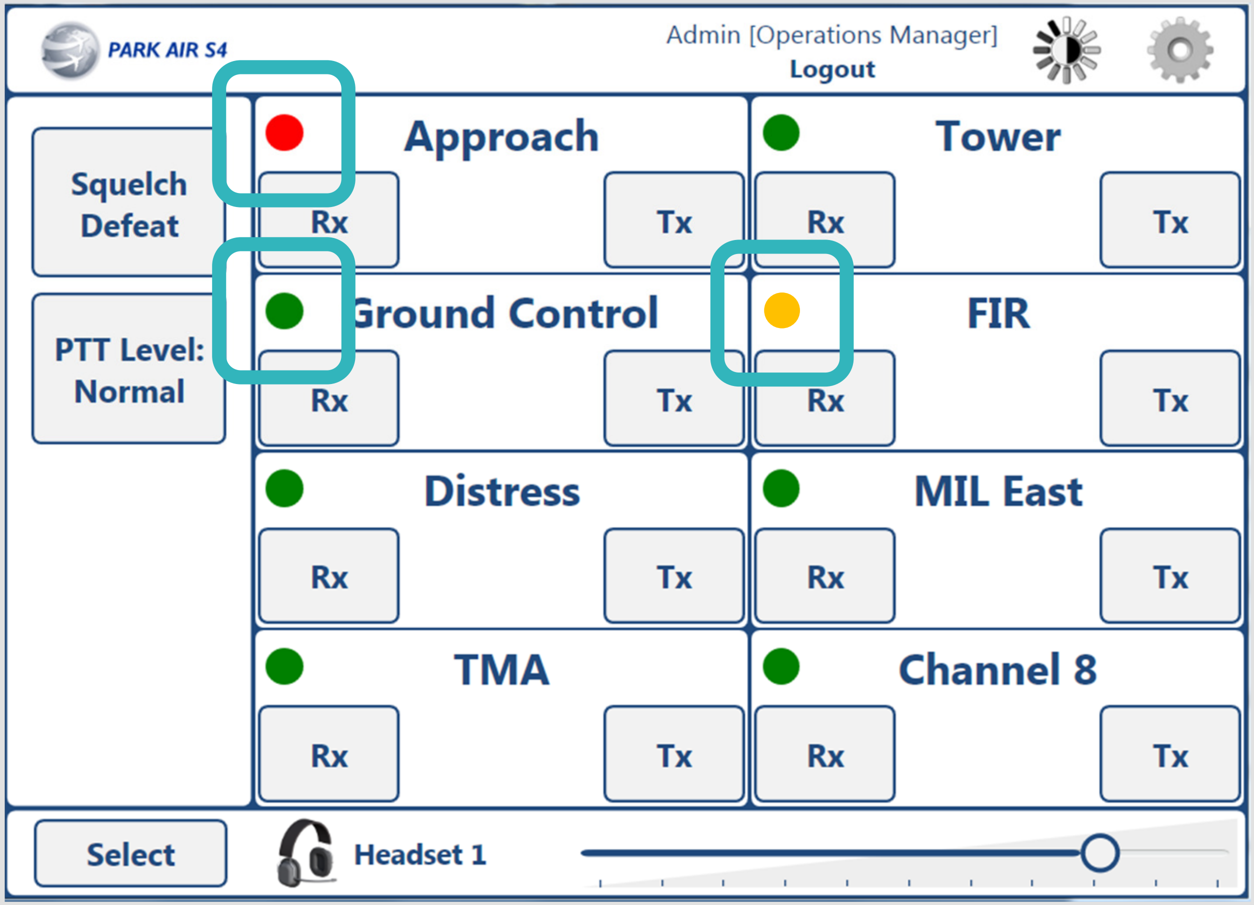


- TFT LCD resistive touch panel display
- Dual 12 V DC inputs (or 24 V DC Option)



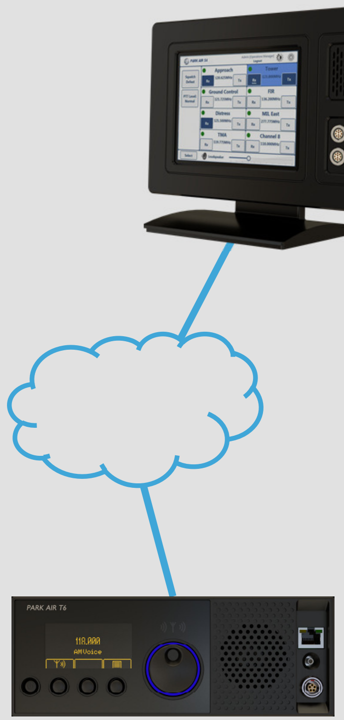
- Additional system functionality
- Monitor one or more selected channels using a built in speaker or connected headphones
- Transmit on one or more selected channels
- 3 levels of PTT priority

- Management of channels
- Change channel frequency
- Select from channel frequency presets
- Switch between Main and Standby equipment using manual or automatic selection
- Adjust receiver squelch threshold
- Adjust transmitter output power


PARK AIR S4
Admin [Operations Manager]
Logout
Squelch Defeat
PTT Level: Normal
Approach
Rx
Tx
Tower
Rx
Tx
Ground Control
Rx
Tx
FIR
Rx
Tx
Distress
Rx
Tx
MIL East
Rx
Tx
TMA
Rx
Tx
Channel 8
Rx
Tx
Select
Headset 1

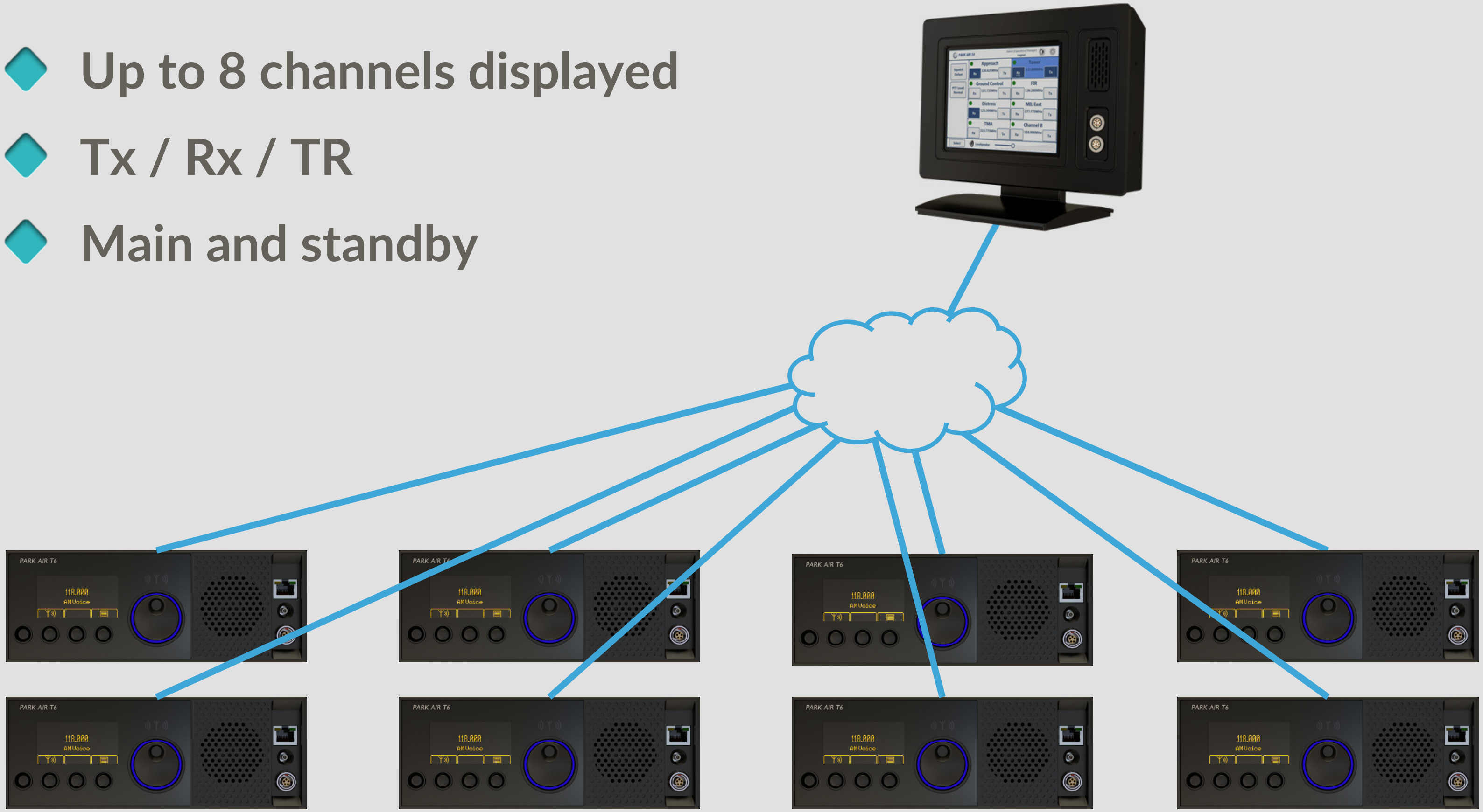
Simple system configuration

- 1 S4 IP Controller
- 1 T6-TRV transceiver
- 1 channel



Increasing complexity

- Up to 8 channels displayed
- Tx / Rx / TR
- Main and standby



Up to 10 S4s per radio



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Mounting Options

- Desk stand mounting
- Console panel mounting



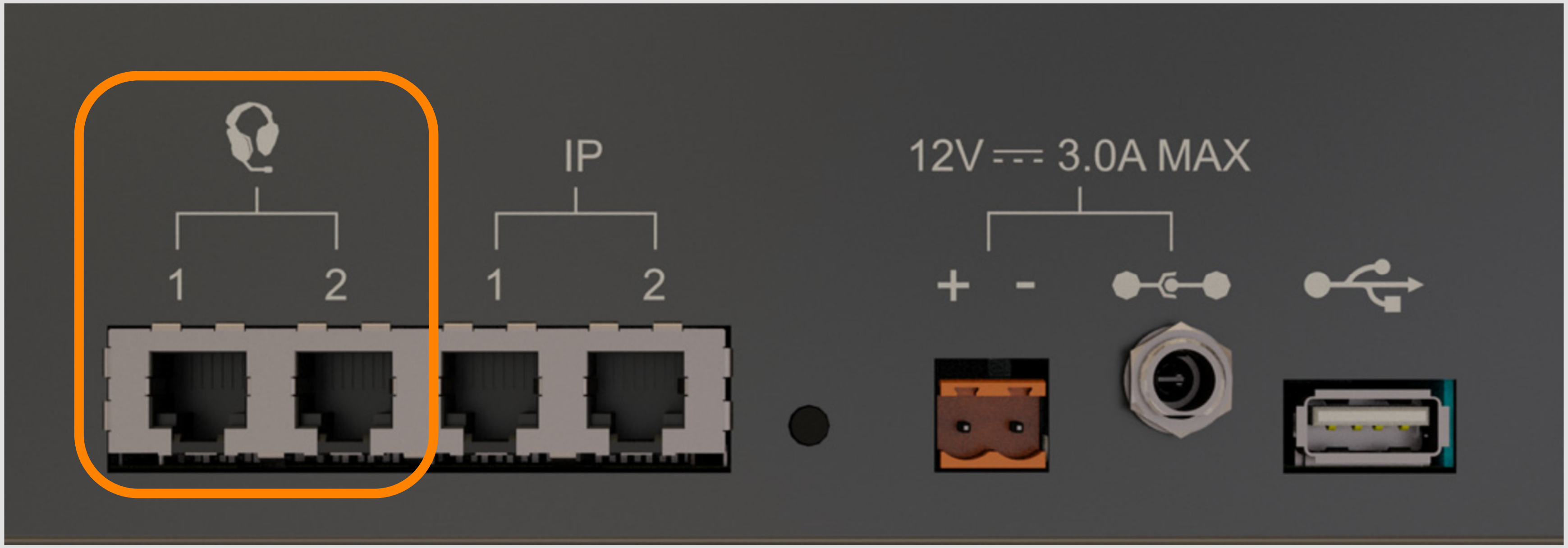


Microphone / headset interfaces



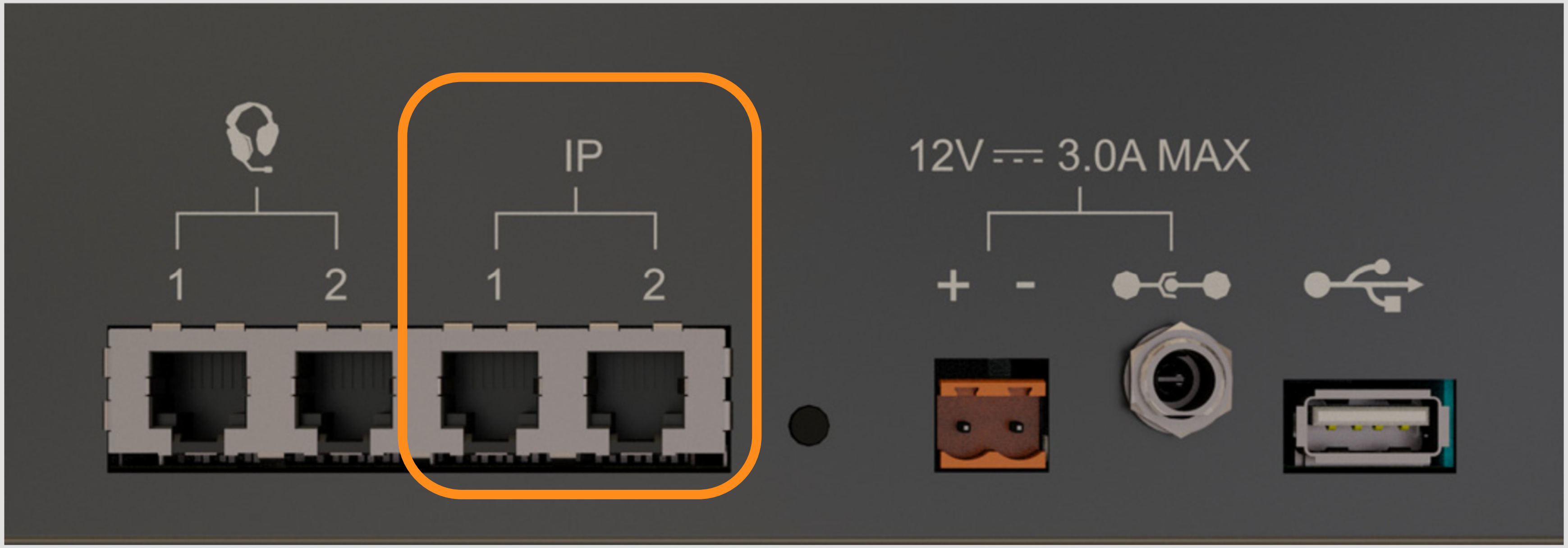
Microphone / headset interfaces

- Mirrors front panel headset 1 and 2 connectors
- Microphone and headset interfaces are configurable to match multiple microphones and headset types



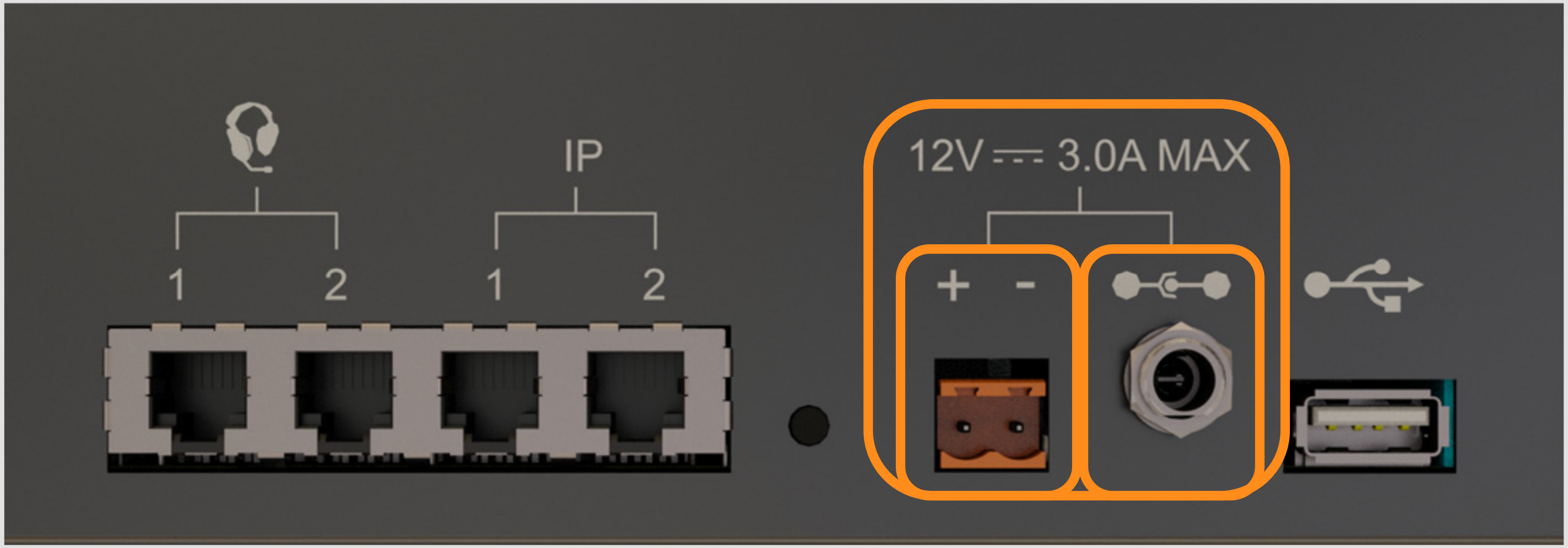
Network interfaces

- Two network connections



Power connections

- Standard 12 V DC (Option 24 V DC)

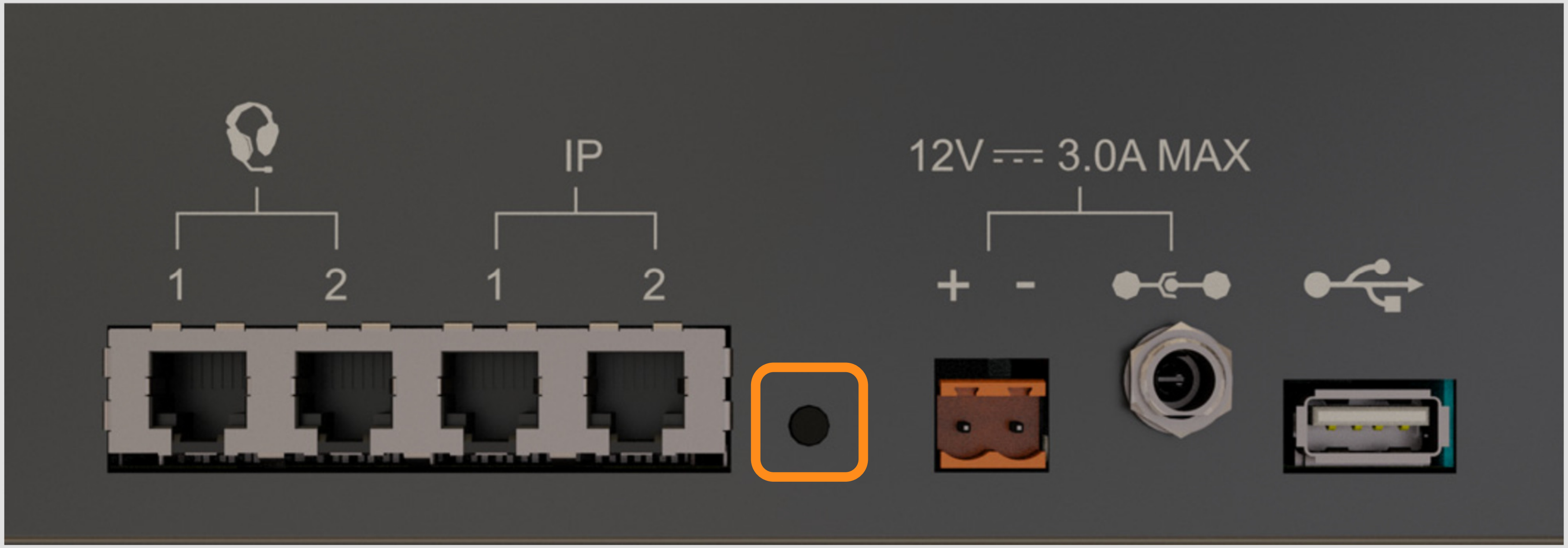


Power connections

- AC to 12 V 3.0A DC PSU

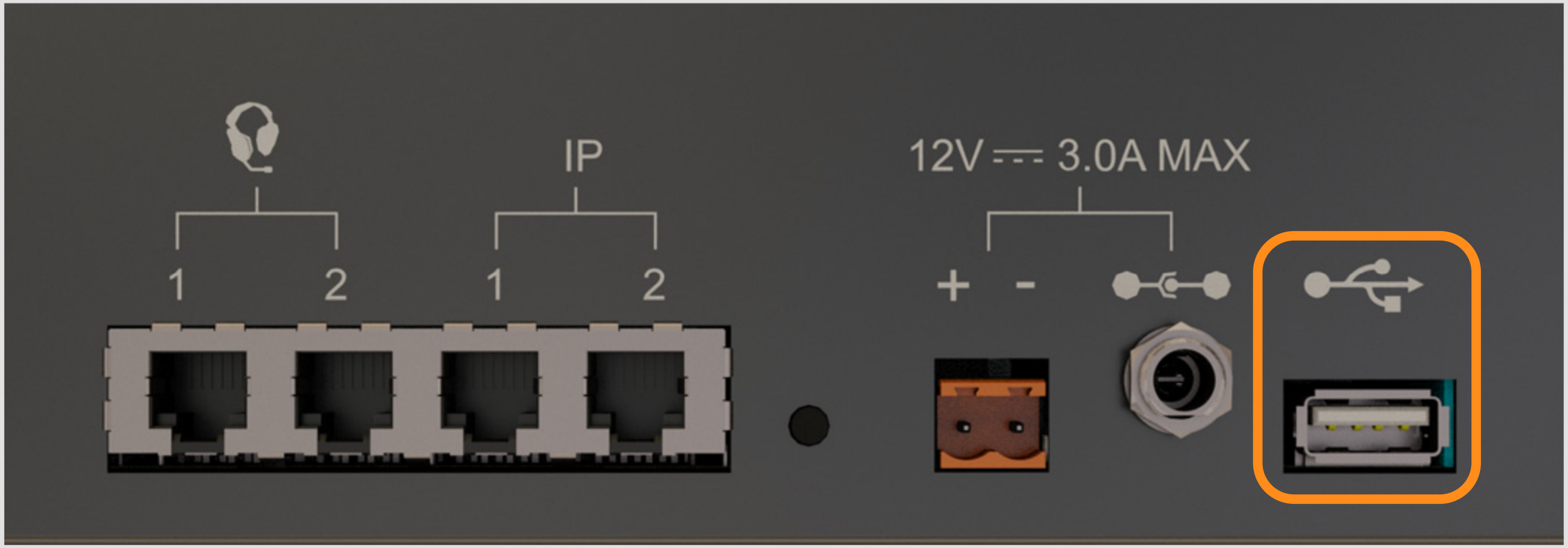


Shutdown / Start button



USB interface

- USB (2.0) interface for software, configuration, keyboard and mouse



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Network Protocols

- IP based communication
- VoIP ED-137 compliant
- SIP, SDP for link connection
- R2S for link maintenance
- RTP for voice
- Multiple audio codecs supported – G.711 A-law / µ-law and G.729
- TCP for radio monitoring (RCMS)

Recording protocols

- ED-137 compliant
- RTP or RTSP protocols
- Support for up to four record streams

NTP

- Network Time Protocol
- Up to two time servers
- Notification of loss of synchronisation
- Synchronisation history for the previous eight updates

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Logging In

Username


PARK AIR S4
PARK AIR S4
IP CONTROLLER
User Name
Admin
Password
Enter
Select
Headset 1

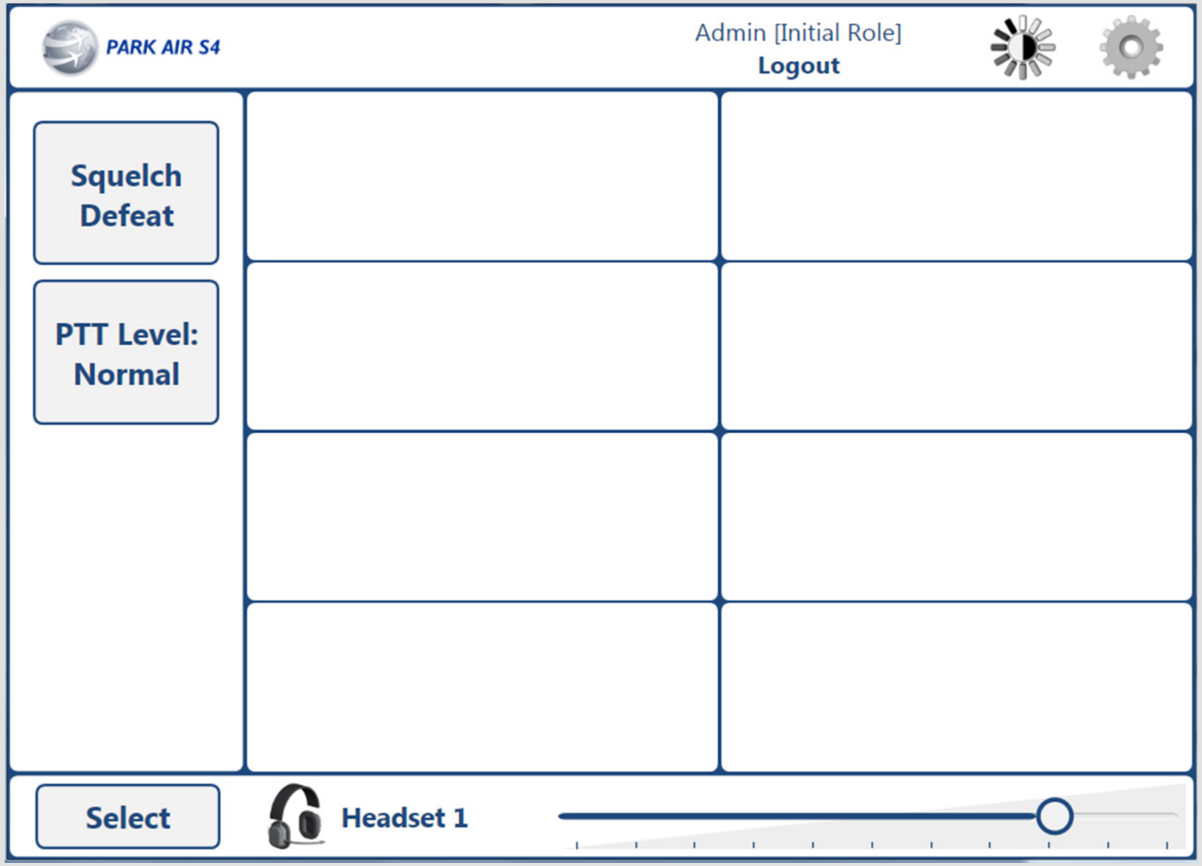
Password


PARK AIR S4
PARK AIR S4
User Name
Admin
Password
Enter
IP CONTROLLER
Select
Headset 1

Password


PARK AIR S4
Enter the password to login
Password
Value must be at least 1 character(s) long
! ' - _ % ~ . * ( )
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
Shift
Space
BkSp
C
Select
Headset 1

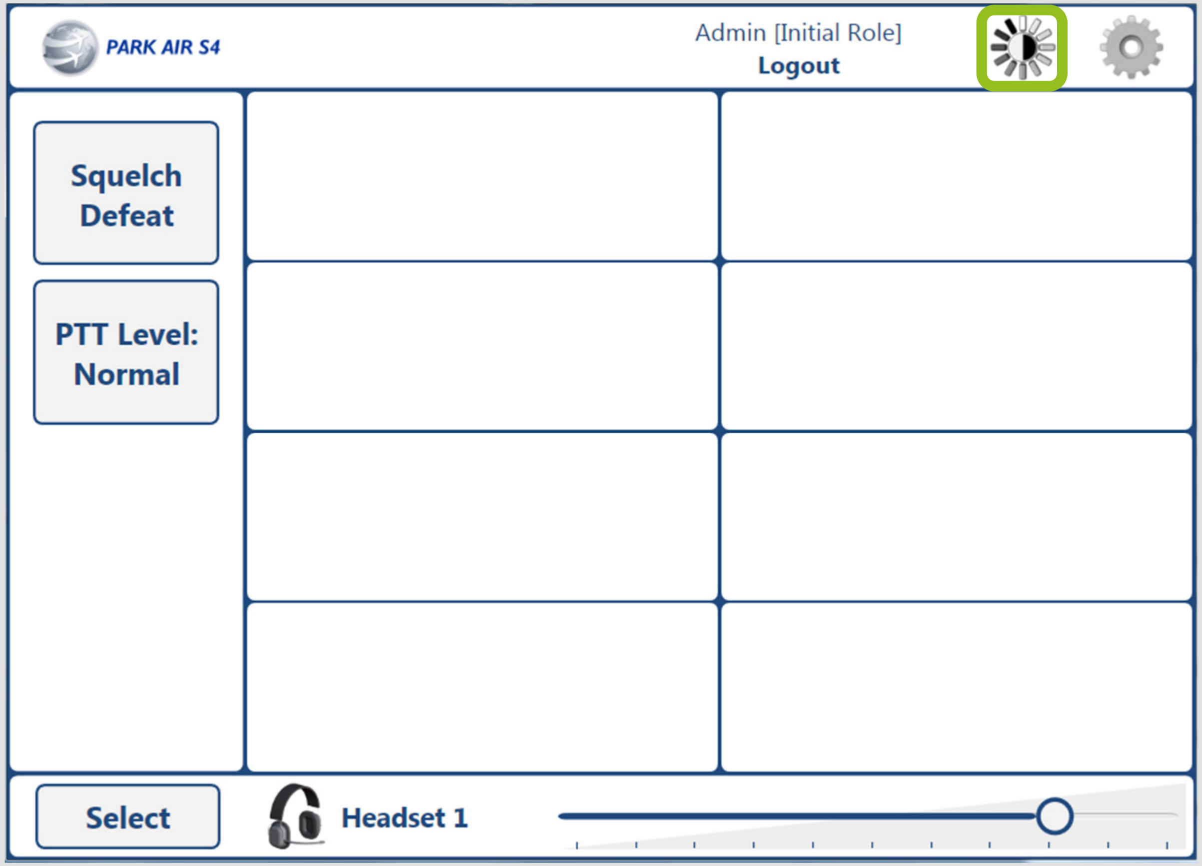
Home screen


PARK AIR S4
Admin [Initial Role]
Logout
Squelch Defeat
PTT Level: Normal
Select
Headset 1

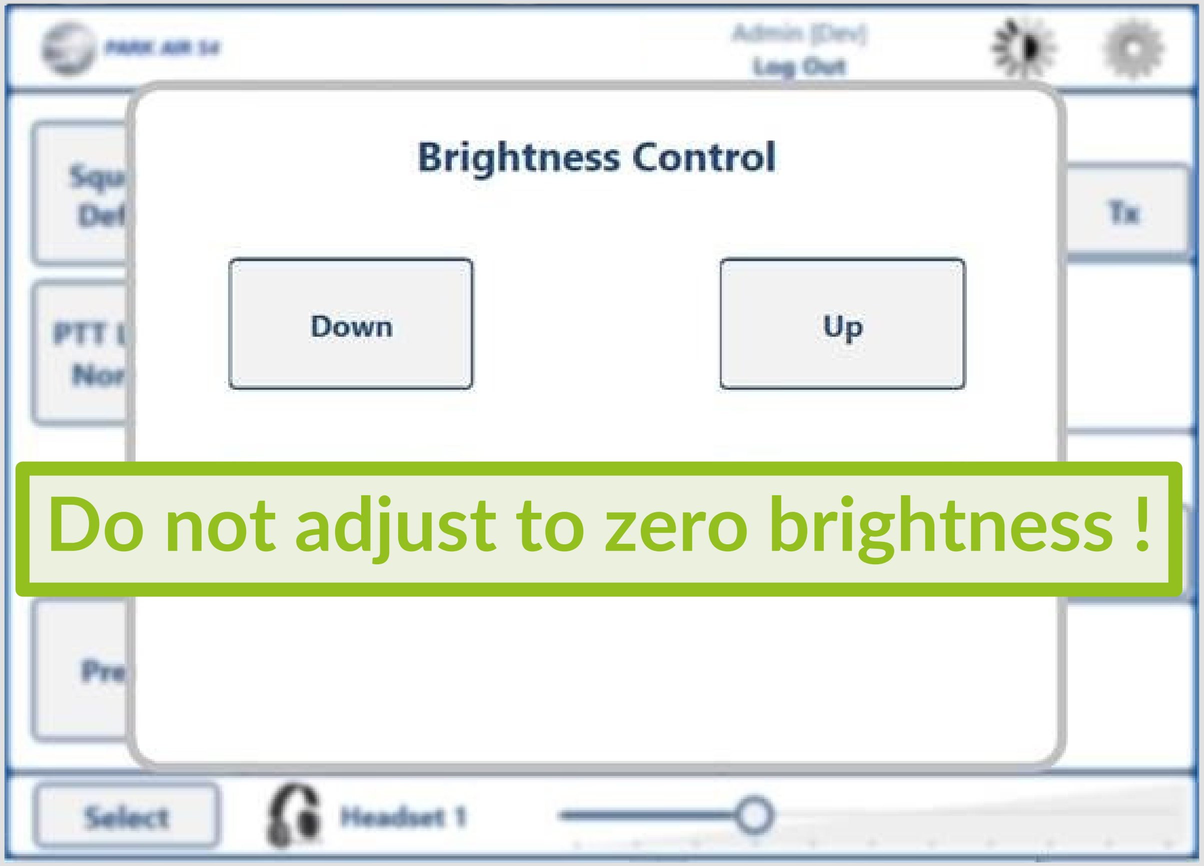
4

General Controls

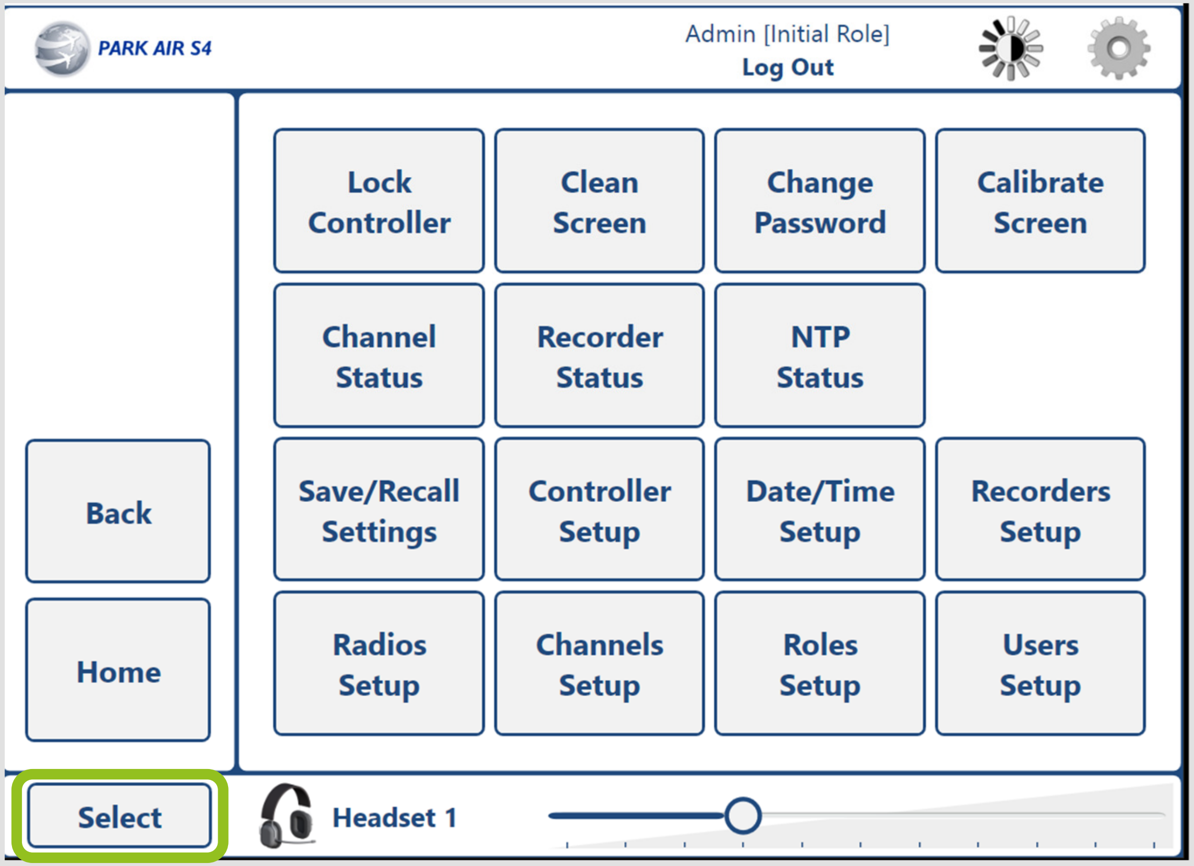
Adjust brightness



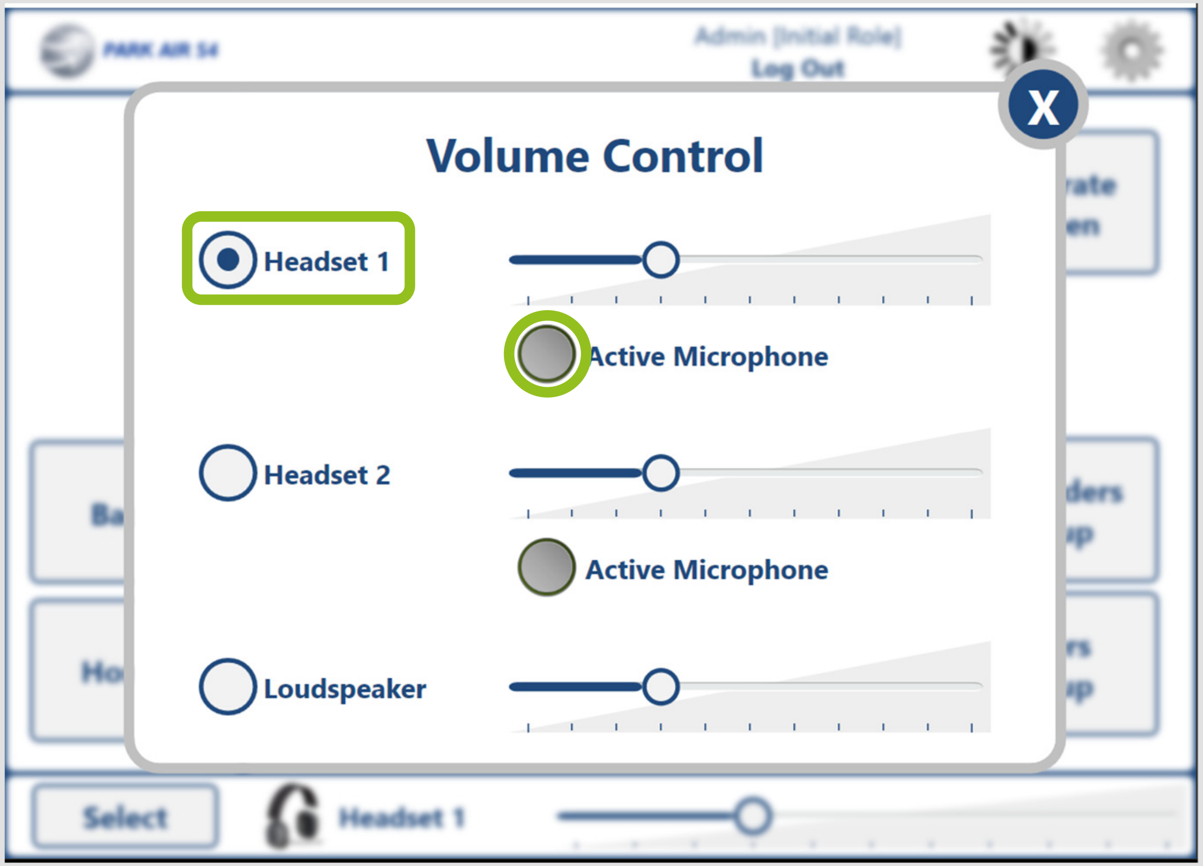
Adjust brightness



Microphone and headset settings

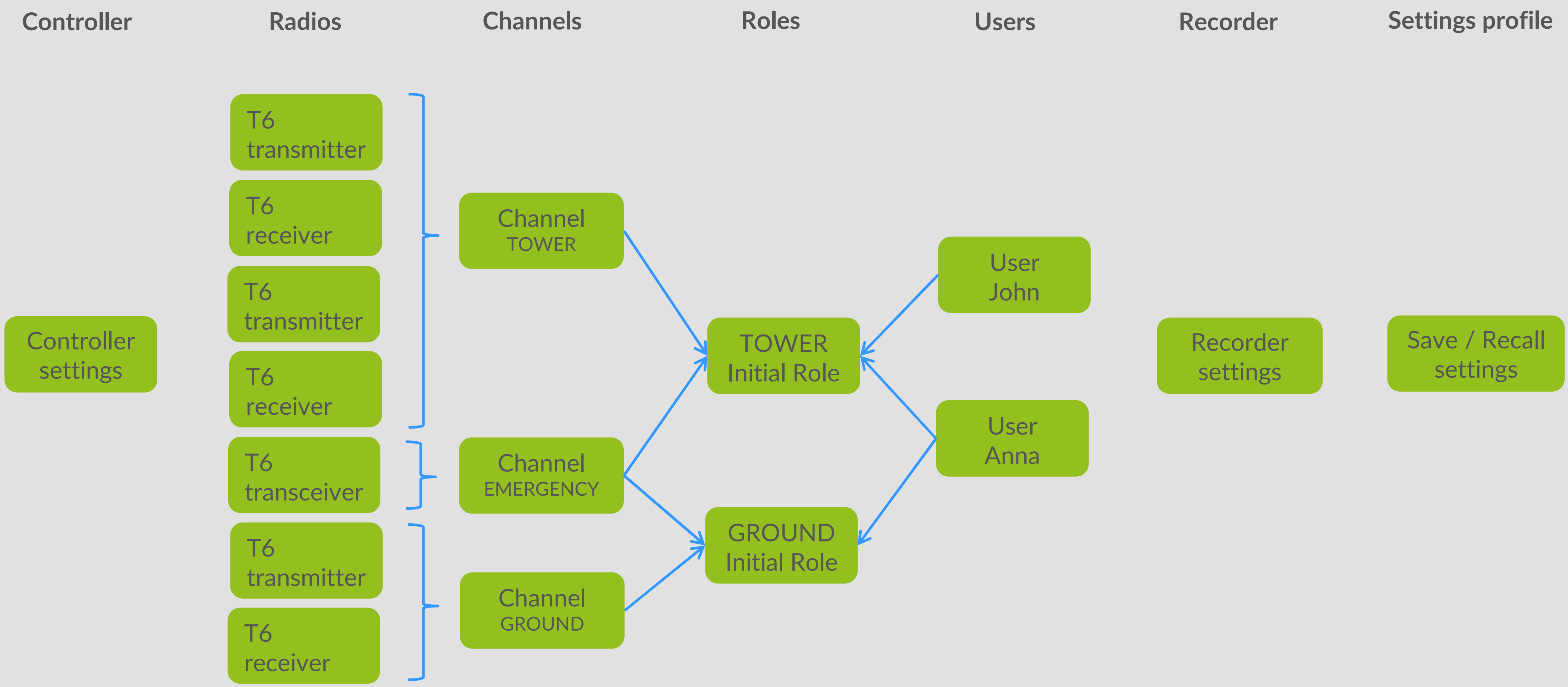


Microphone and headset settings

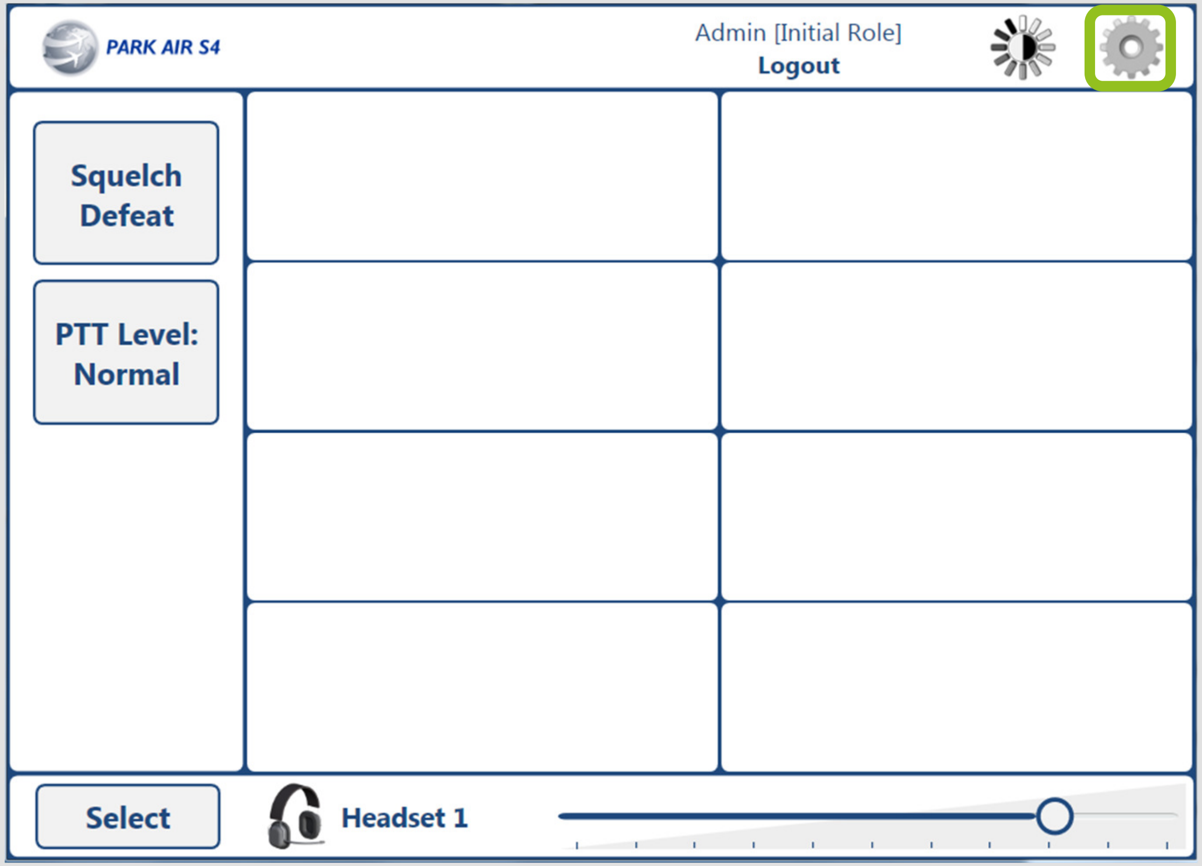


Operational settings

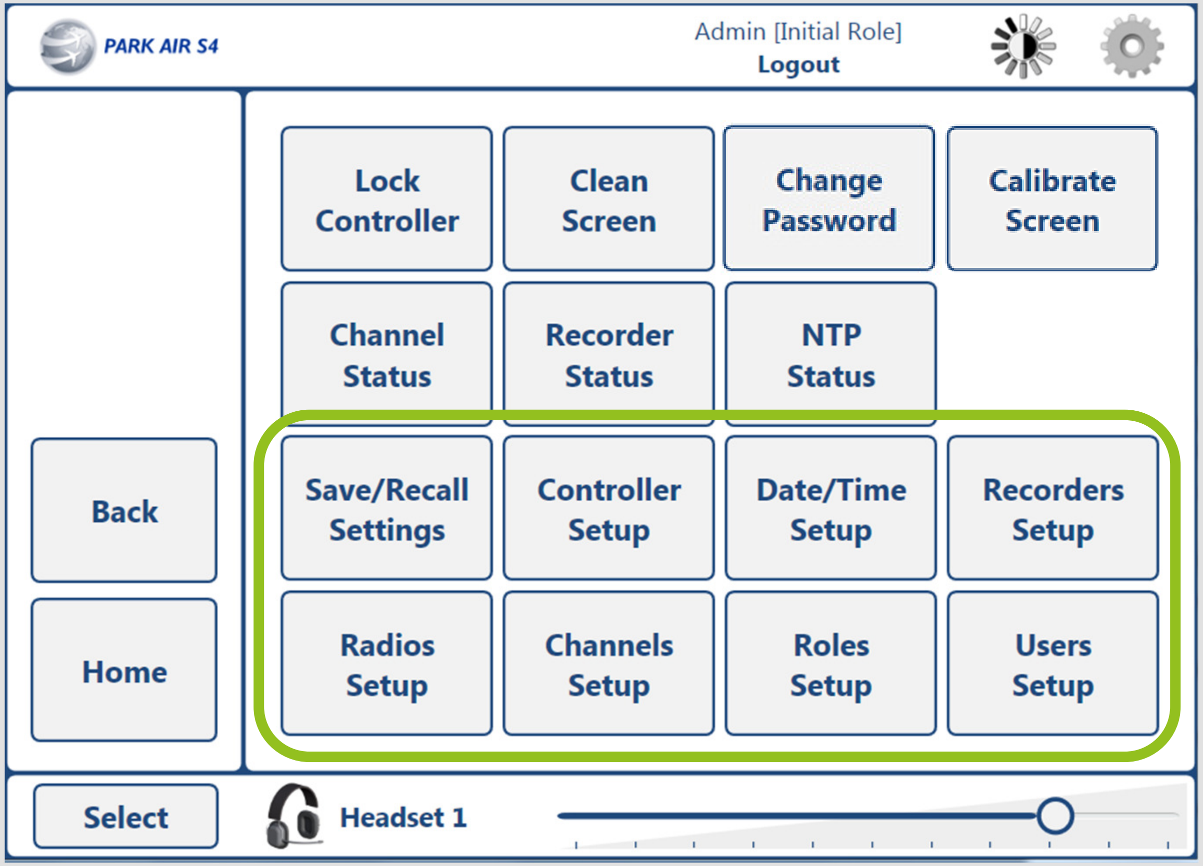
Operational settings sequence



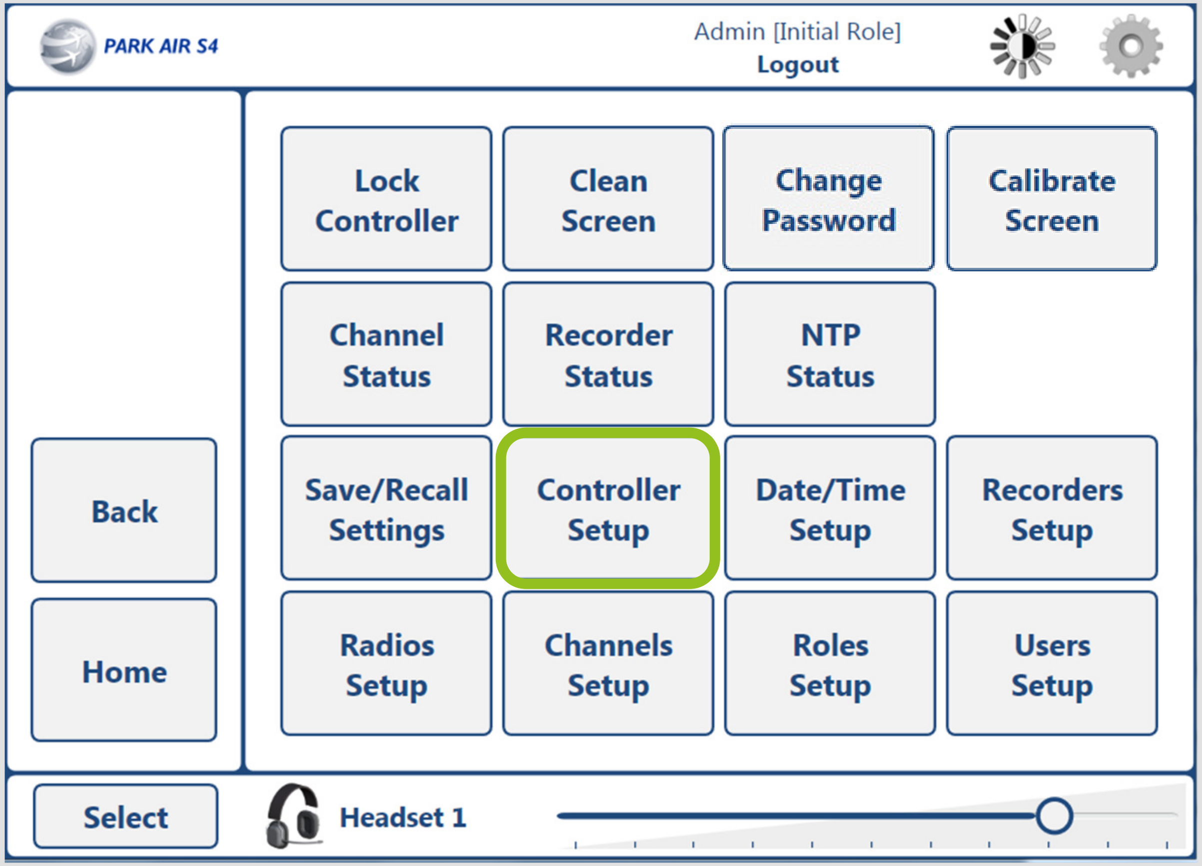
Operational settings



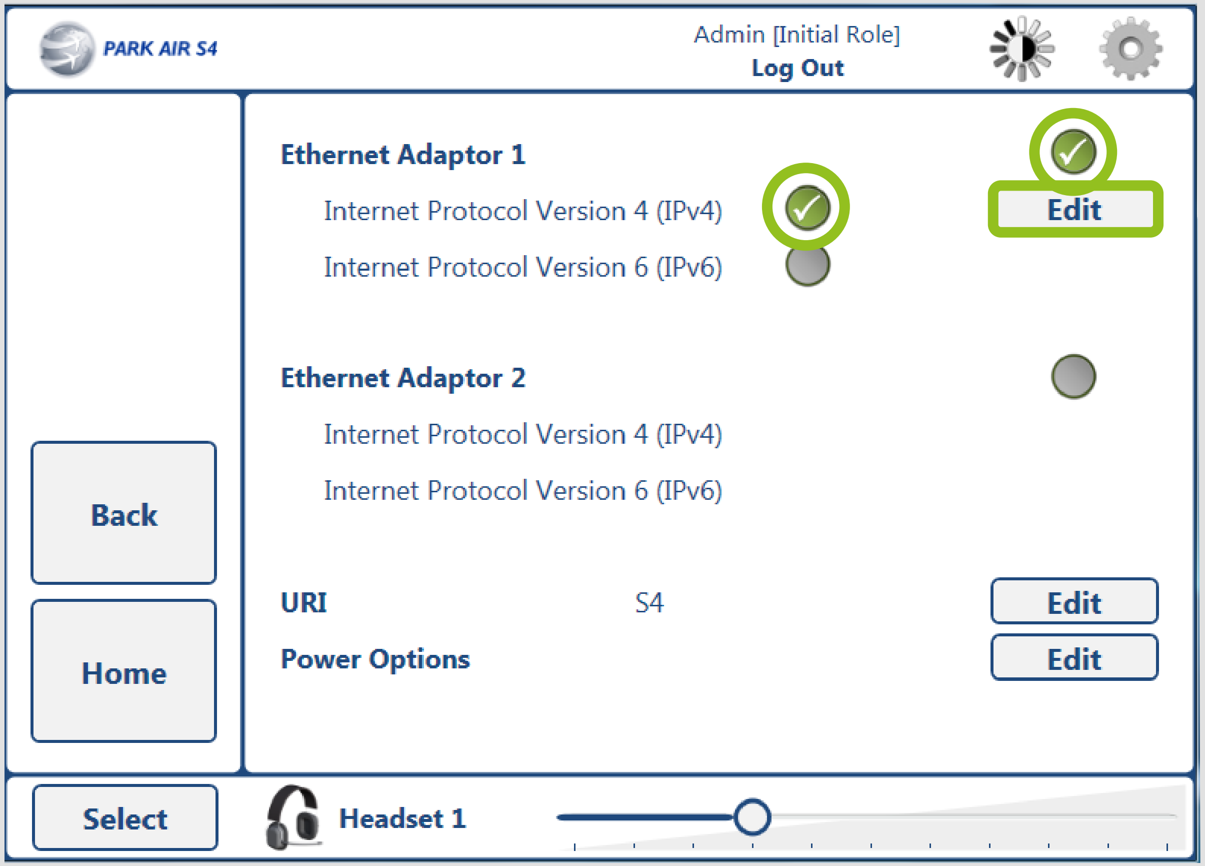
Operational settings



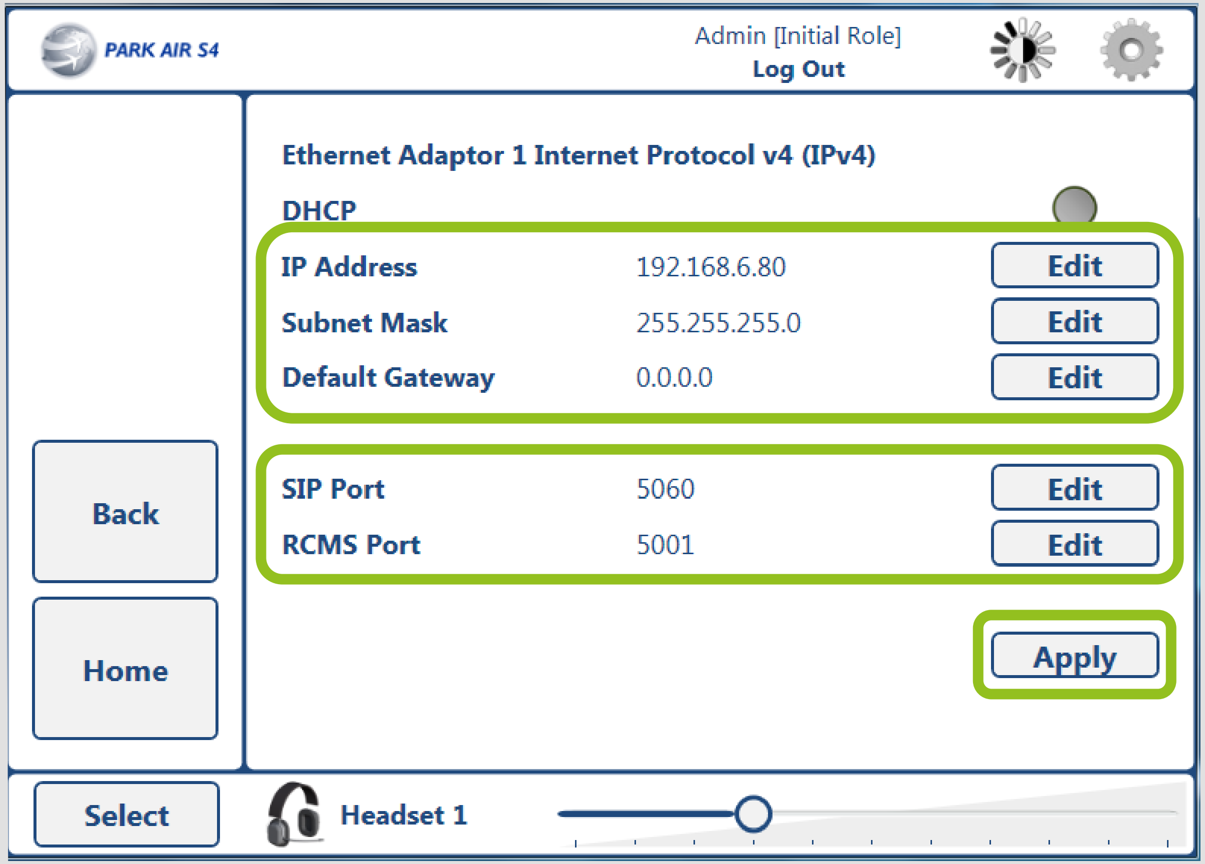
Controller


PARK AIR S4
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Change Password
Calibrate Screen
Channel Status
Recorder Status
NTP Status
Back
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Home
Radios Setup
Channels Setup
Roles Setup
Users Setup
Select
Headset 1

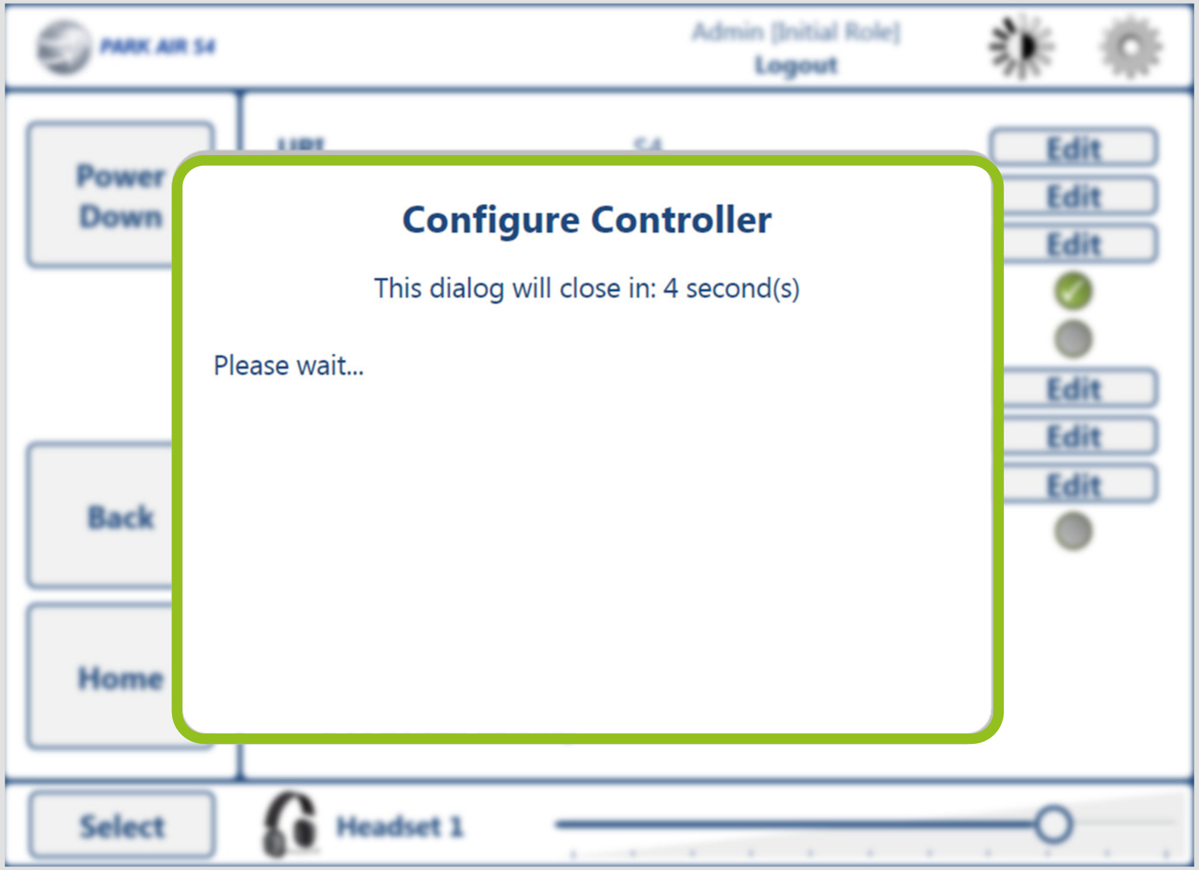
Controller


PARK AIR S4
Admin [Initial Role]
Log Out
Ethernet Adaptor 1
Internet Protocol Version 4 (IPv4)
Internet Protocol Version 6 (IPv6)
Edit
Ethernet Adaptor 2
Internet Protocol Version 4 (IPv4)
Internet Protocol Version 6 (IPv6)
URI
S4
Edit
Power Options
Edit
Back
Home
Select
Headset 1

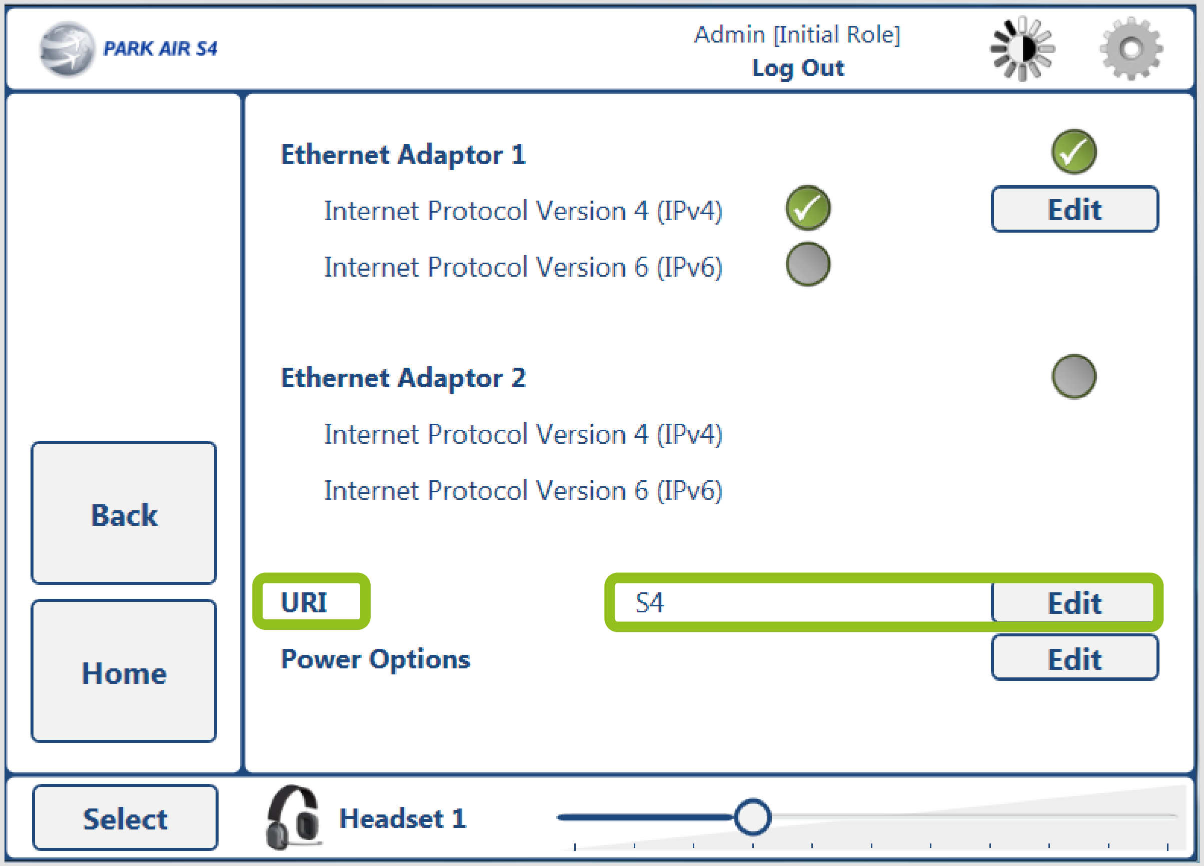
Controller


PARK AIR S4
Admin [Initial Role]
Log Out
Ethernet Adaptor 1 Internet Protocol v4 (IPv4)
DHCP
IP Address
192.168.6.80
Edit
Subnet Mask
255.255.255.0
Edit
Default Gateway
0.0.0.0
Edit
SIP Port
5060
Edit
RCMS Port
5001
Edit
Apply
Back
Home
Select
Headset 1

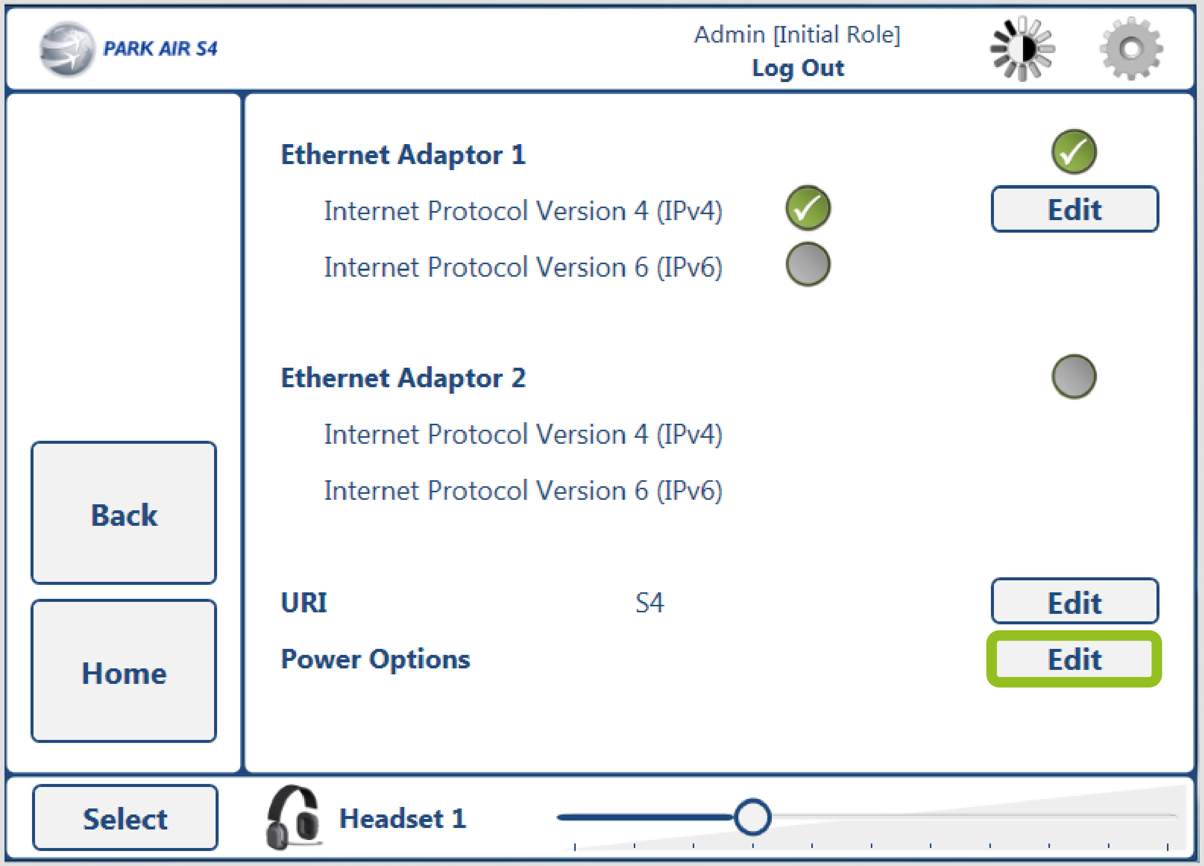
Controller


Admin [Initial Role]
Logout
Power Down
Back
Home
Edit
Edit
Edit
Edit
Edit
Edit
Configure Controller
This dialog will close in: 4 second(s)
Please wait...
Select
Headset 1

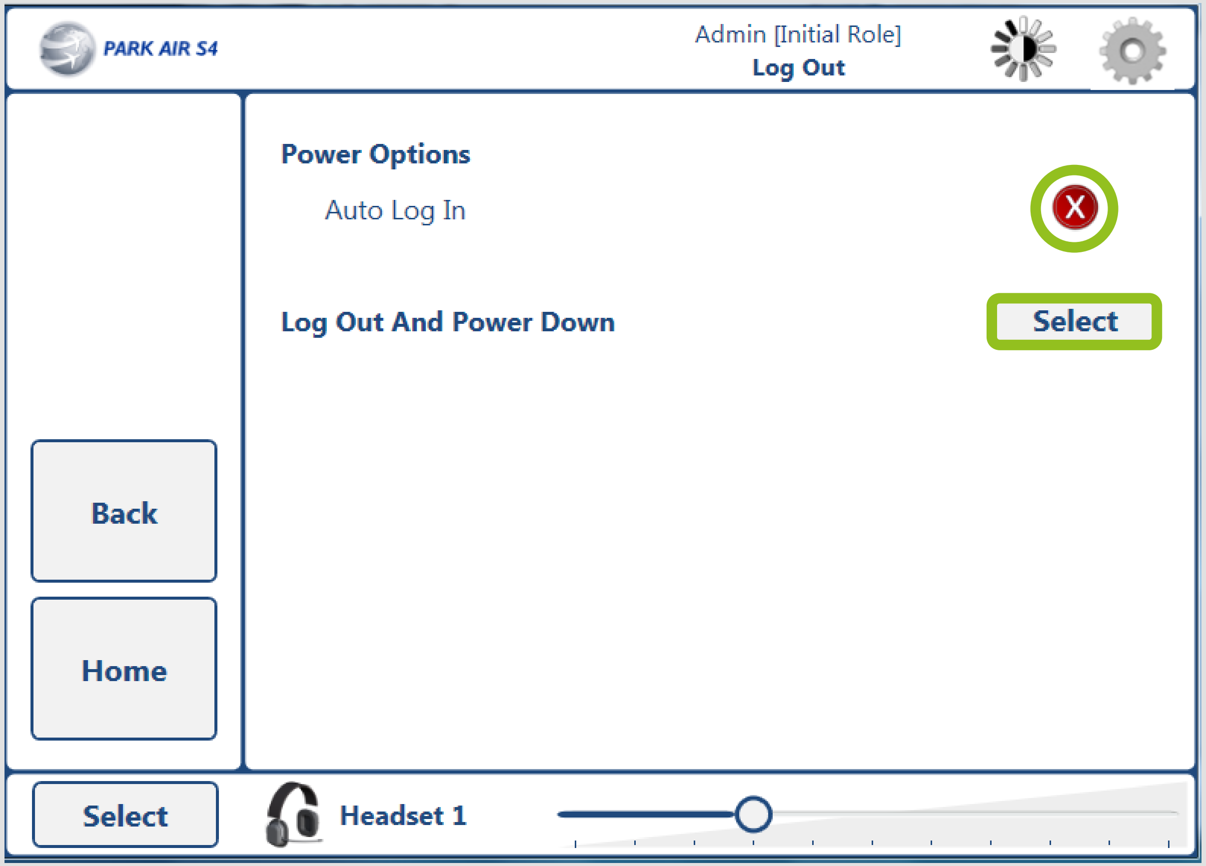
Controller


PARK AIR S4
Admin [Initial Role]
Log Out
Ethernet Adaptor 1
Internet Protocol Version 4 (IPv4)
Internet Protocol Version 6 (IPv6)
Edit
Ethernet Adaptor 2
Internet Protocol Version 4 (IPv4)
Internet Protocol Version 6 (IPv6)
Back
Home
URI
S4
Edit
Power Options
Edit
Select
Headset 1

Controller

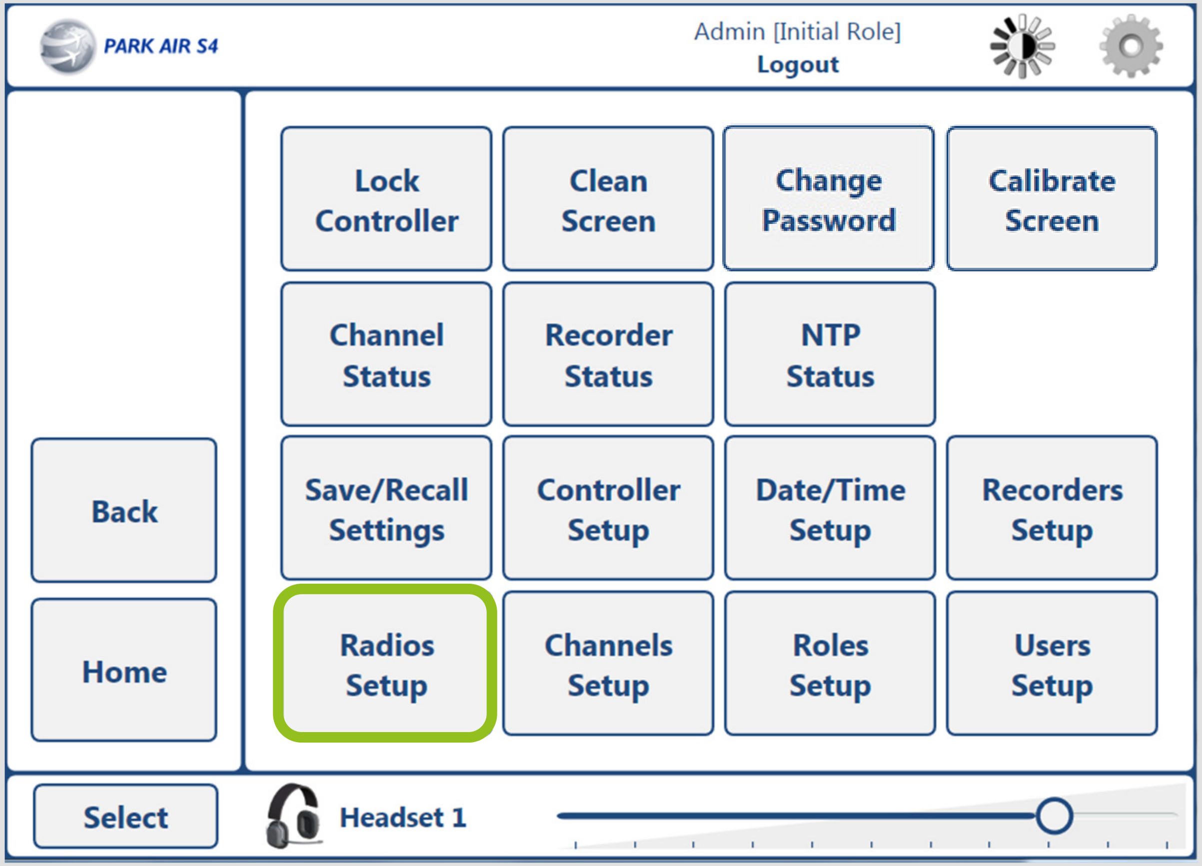

PARK AIR S4
Admin [Initial Role]
Log Out
Ethernet Adaptor 1
Internet Protocol Version 4 (IPv4)
Internet Protocol Version 6 (IPv6)
Edit
Ethernet Adaptor 2
Internet Protocol Version 4 (IPv4)
Internet Protocol Version 6 (IPv6)
Back
Home
URI
S4
Edit
Power Options
Edit
Select
Headset 1

Controller

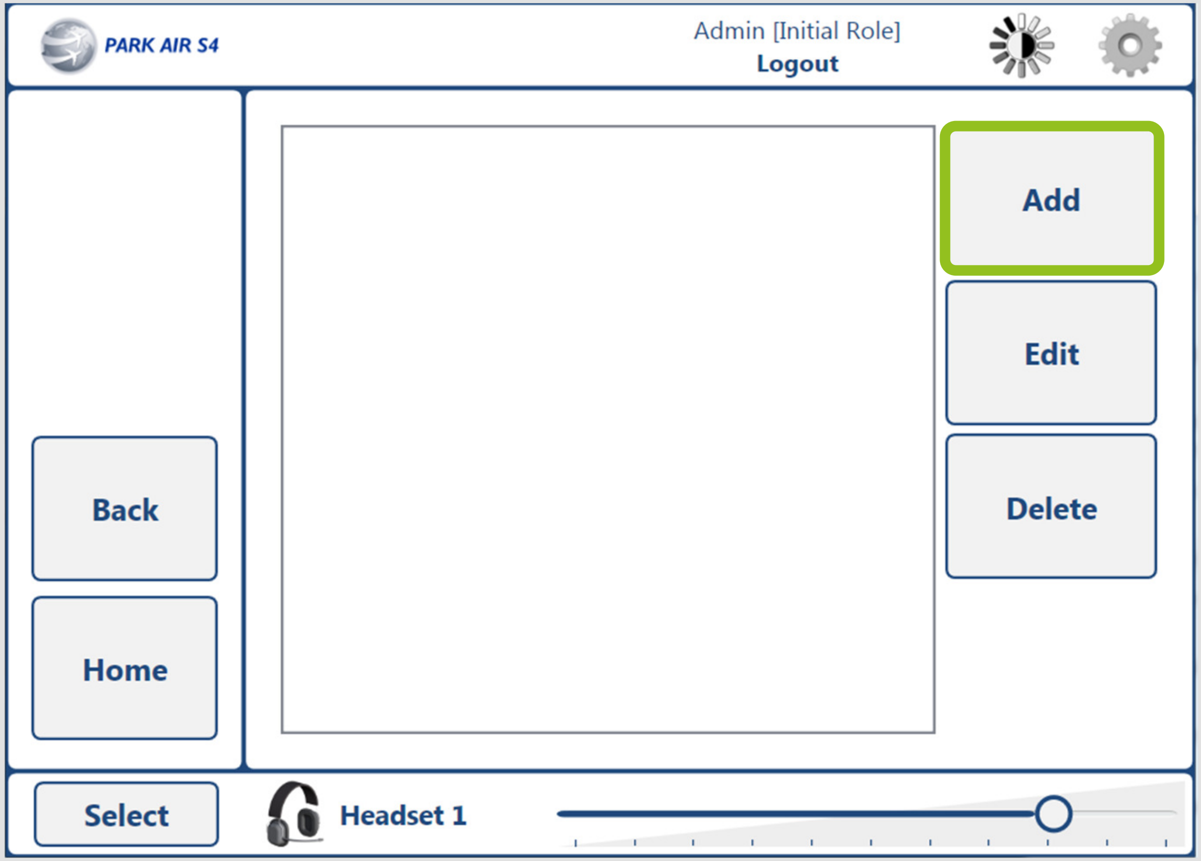

PARK AIR S4
Admin [Initial Role]
Log Out
Power Options
Auto Log In
X
Log Out And Power Down
Select
Back
Home
Select
Headset 1

Radios Setup

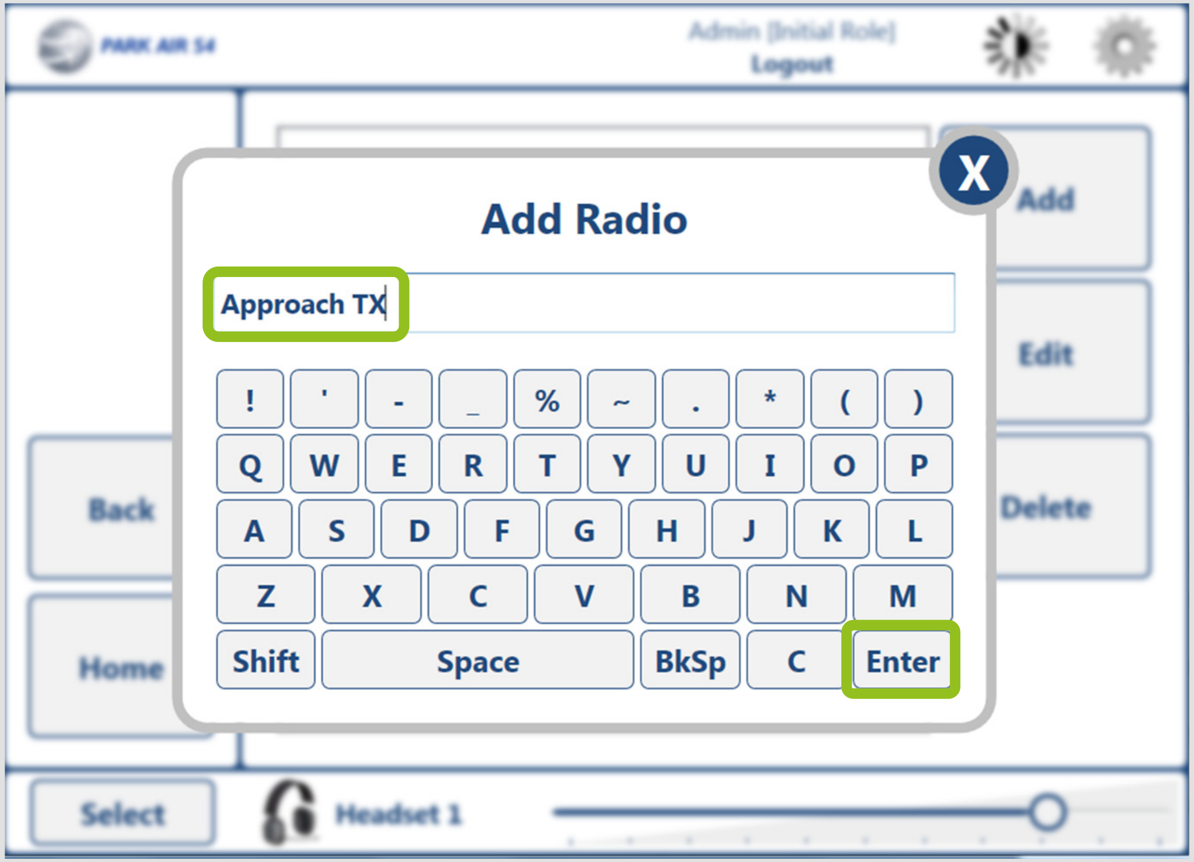
Radios


PARK AIR S4
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Change Password
Calibrate Screen
Channel Status
Recorder Status
NTP Status
Back
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Home
Radios Setup
Channels Setup
Roles Setup
Users Setup
Select
Headset 1

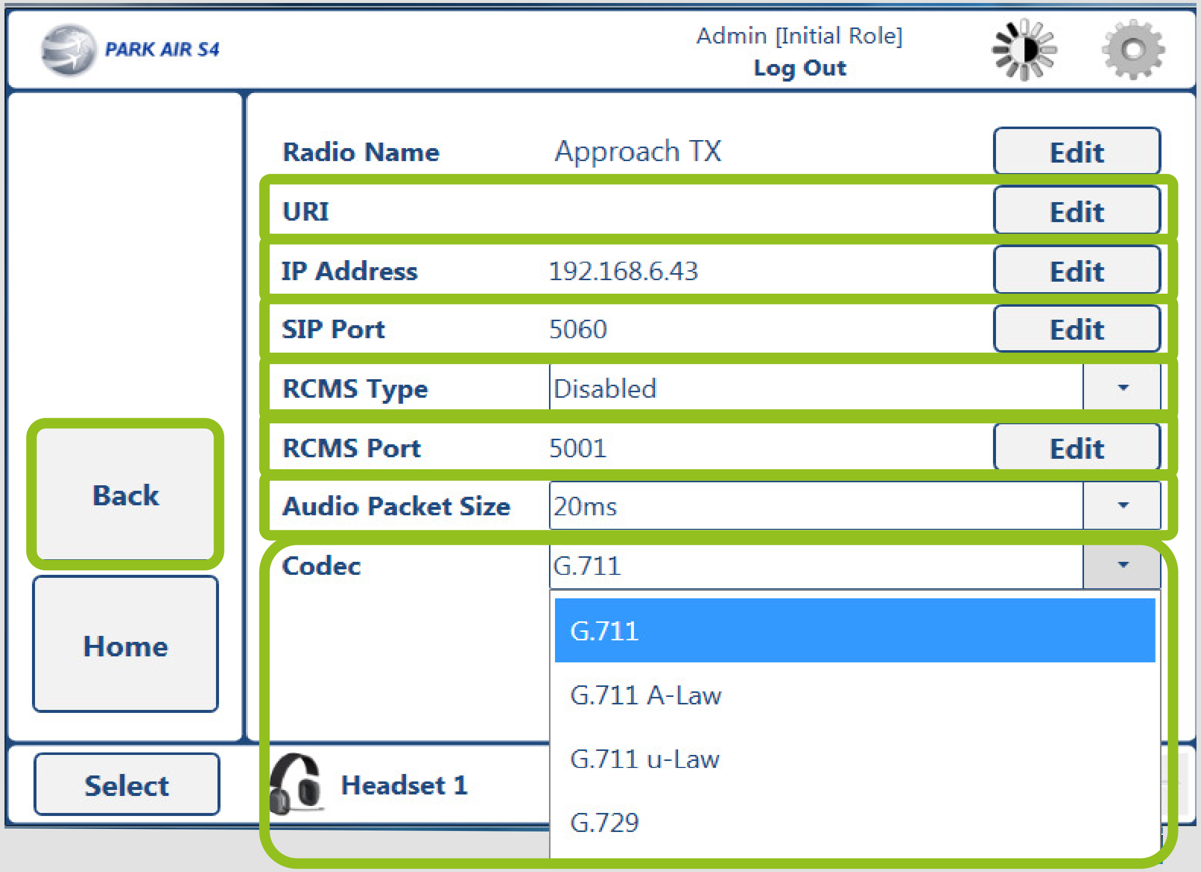
Radios


PARK AIR S4
Admin [Initial Role]
Logout
Add
Edit
Delete
Back
Home
Select
Headset 1

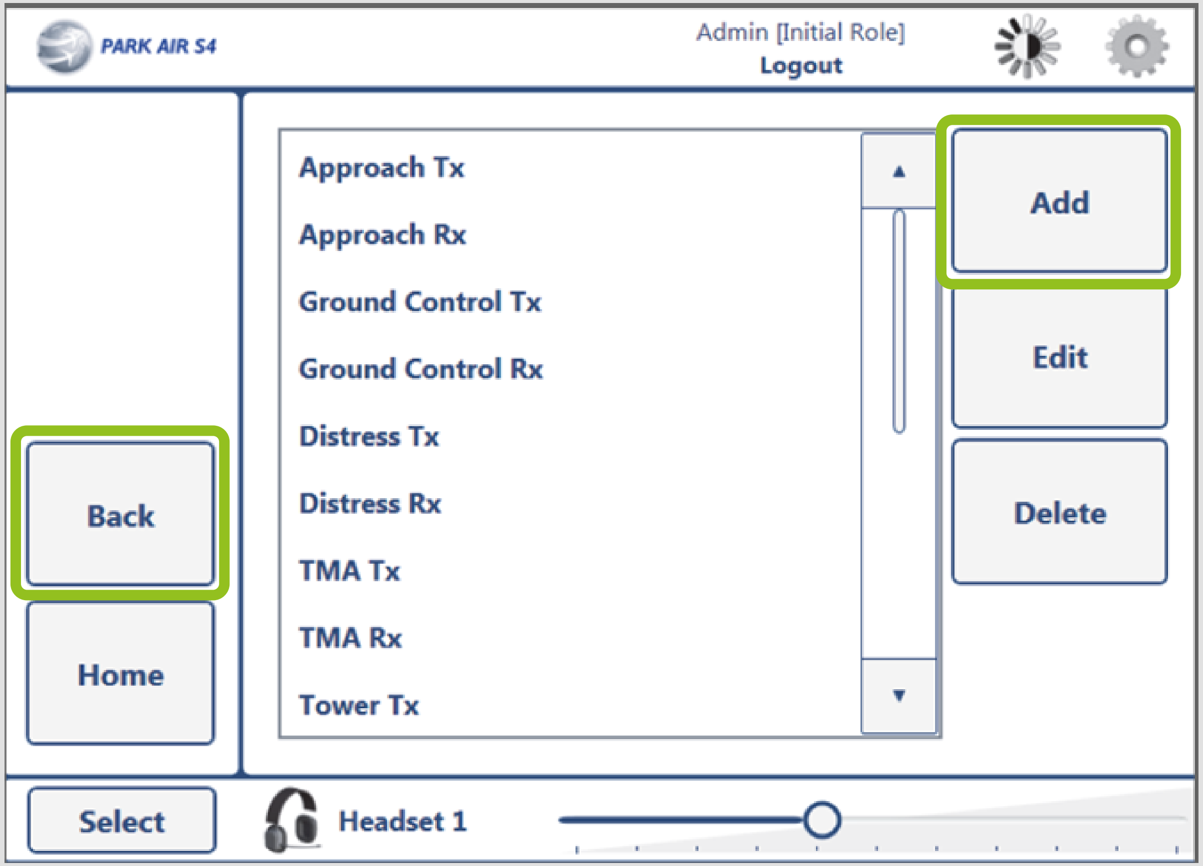
Radios


Admin [Initial Role]
Logout
Add Radio
Approach TX
X
Add
Edit
Delete
Back
Home
! ' - _ % ~ . * ( )
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
Shift
Space
BkSp
C
Enter
Select
Headset 1

Radios

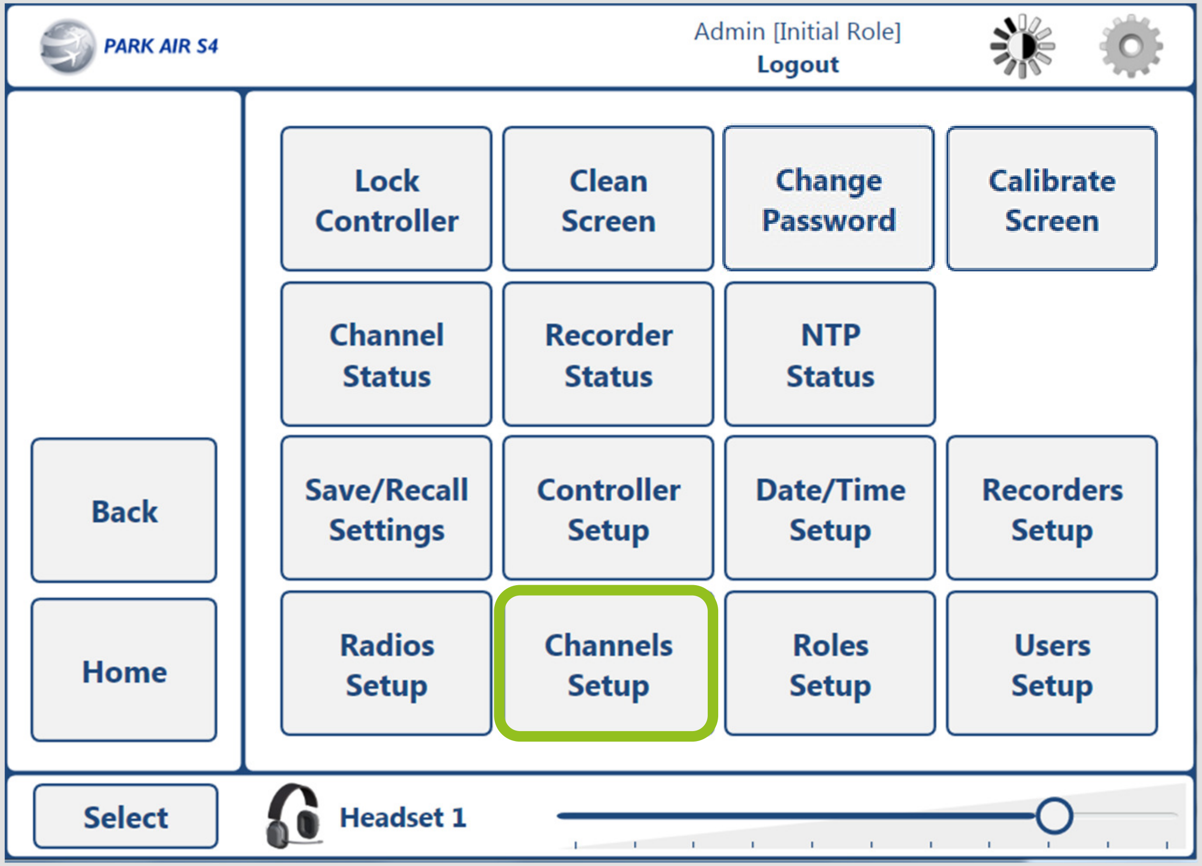

PARK AIR S4
Admin [Initial Role]
Log Out
Radio Name
Approach TX
Edit
URI
Edit
IP Address
192.168.6.43
Edit
SIP Port
5060
Edit
RCMS Type
Disabled
RCMS Port
5001
Edit
Audio Packet Size
20ms
Codec
G.711
G.711
G.711 A-Law
G.711 u-Law
G.729
Back
Home
Select
Headset 1

Radios

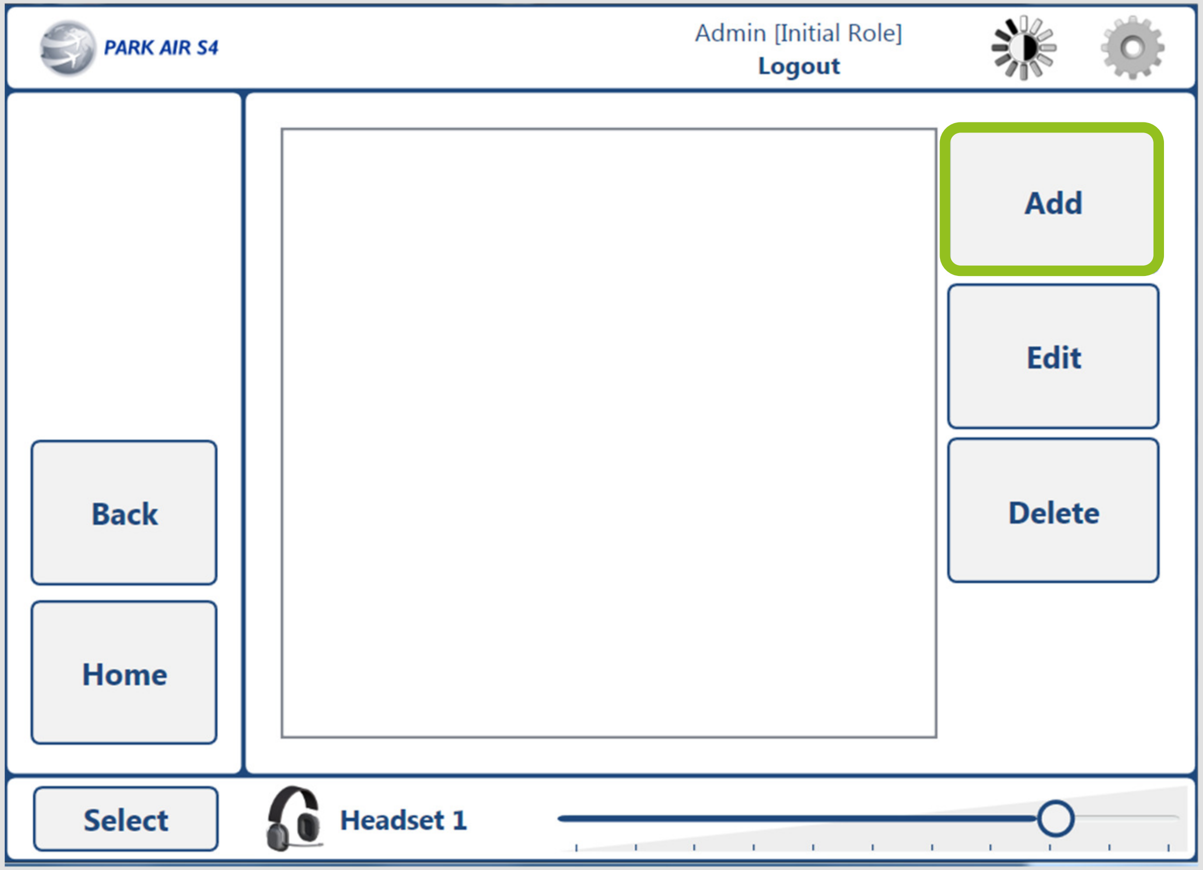

PARK AIR S4
Admin [Initial Role]
Logout
Approach Tx
Approach Rx
Ground Control Tx
Ground Control Rx
Distress Tx
Distress Rx
TMA Tx
TMA Rx
Tower Tx
Add
Edit
Delete
Back
Home
Select
Headset 1

Channels Setup

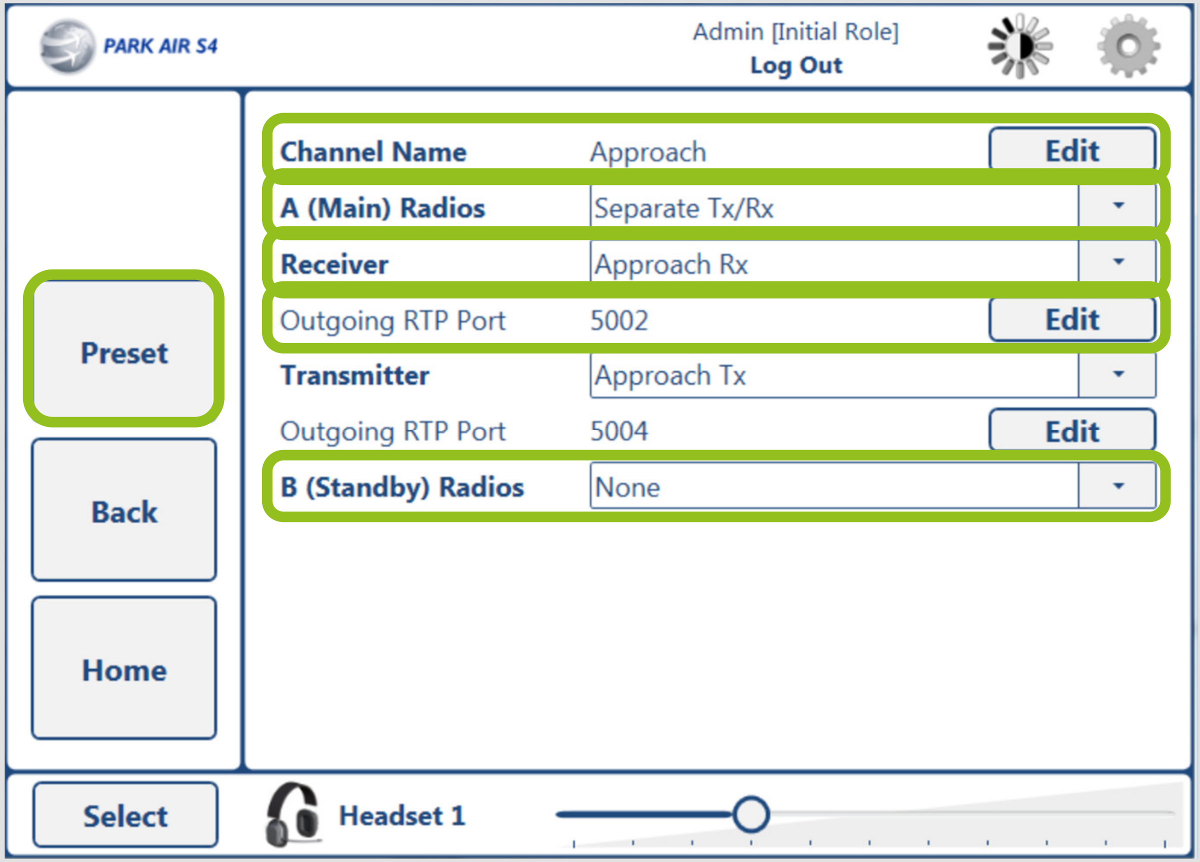
Channels


PARK AIR S4
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Change Password
Calibrate Screen
Channel Status
Recorder Status
NTP Status
Back
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Home
Radios Setup
Channels Setup
Roles Setup
Users Setup
Select
Headset 1

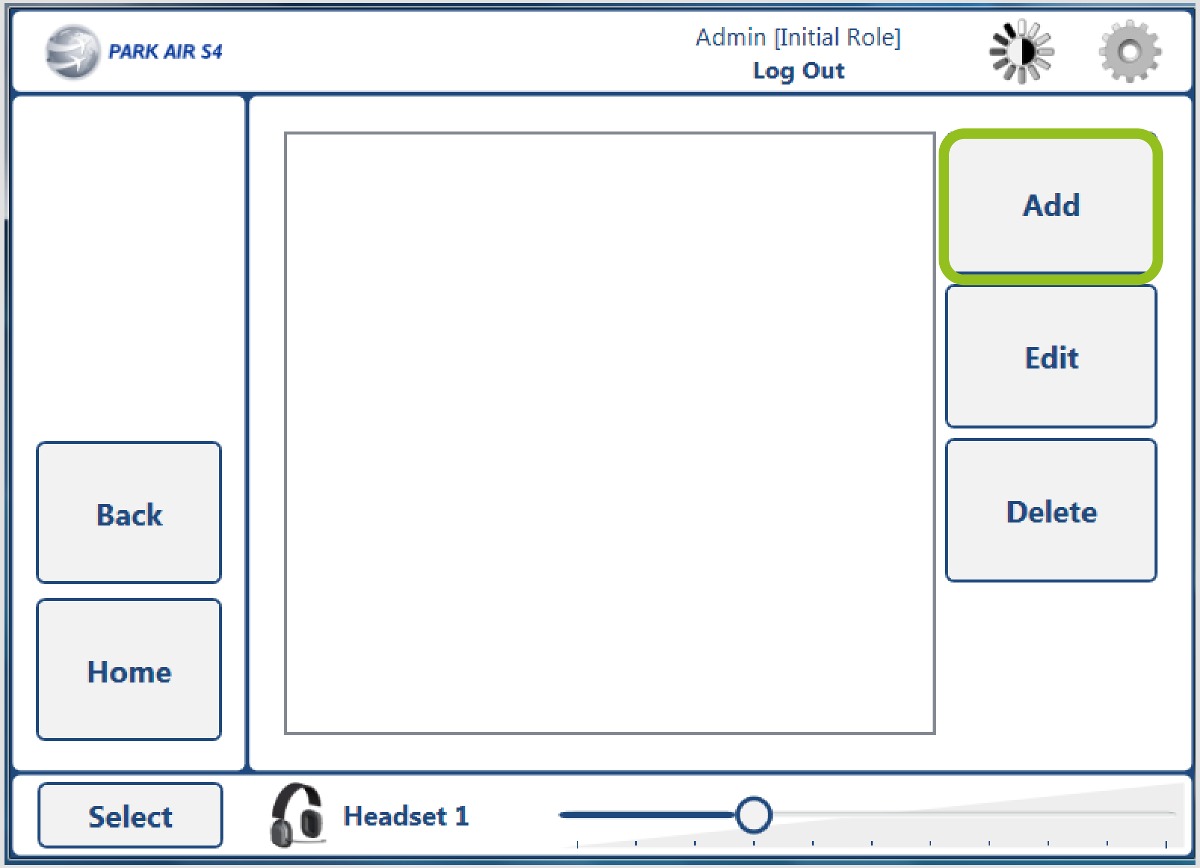
Channels


PARK AIR S4
Admin [Initial Role]
Logout
Add
Edit
Delete
Back
Home
Select
Headset 1

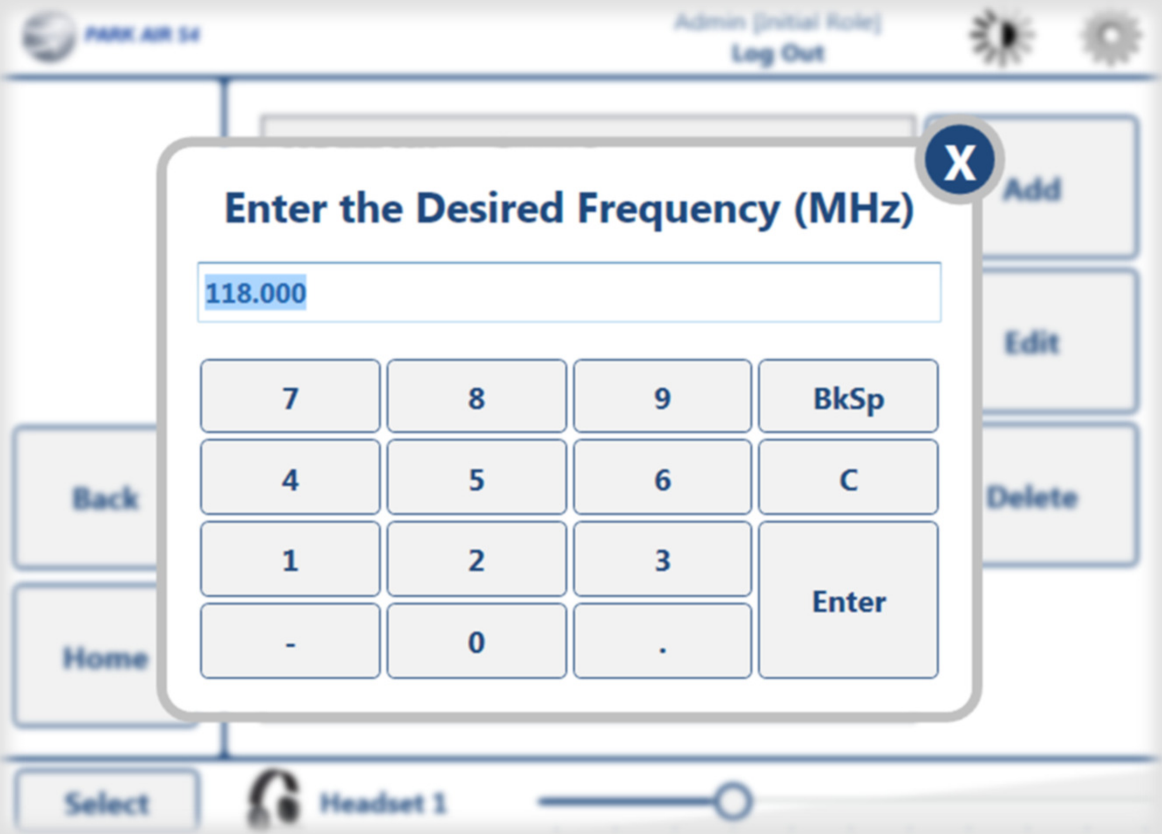
Channels


PARK AIR S4
Admin [Initial Role]
Log Out
Channel Name
Approach
Edit
A (Main) Radios
Separate Tx/Rx
Receiver
Approach Rx
Outgoing RTP Port
5002
Edit
Transmitter
Approach Tx
Outgoing RTP Port
5004
Edit
B (Standby) Radios
None
Preset
Back
Home
Select
Headset 1

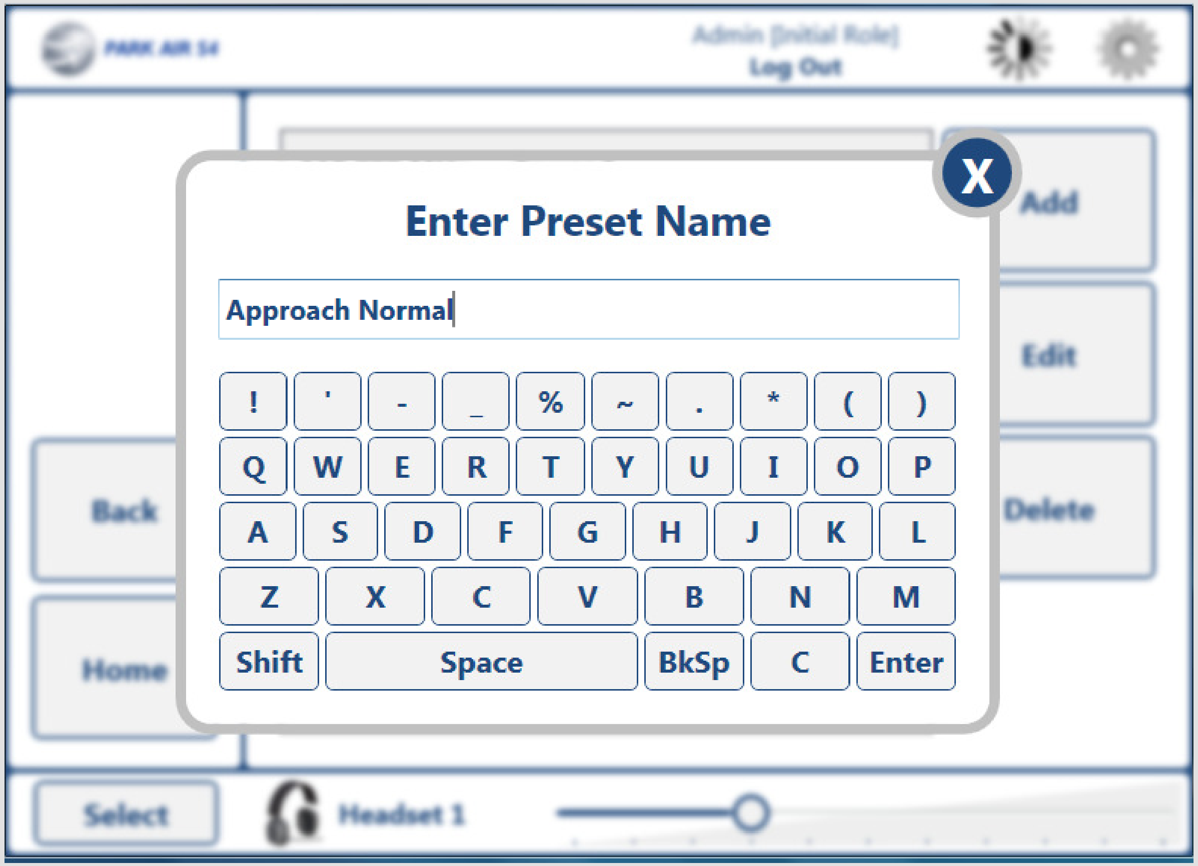
Channels


PARK AIR S4
Admin [Initial Role]
Log Out
Add
Edit
Delete
Back
Home
Select
Headset 1

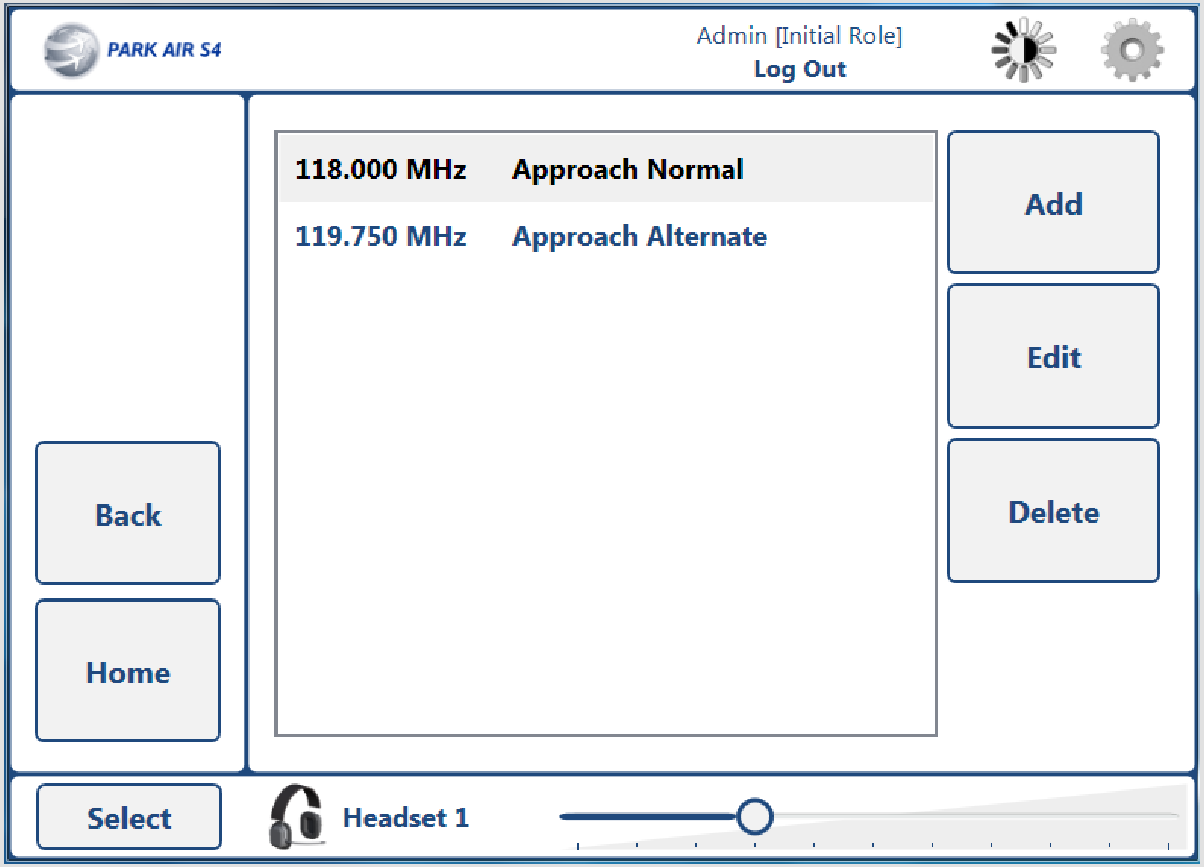
Channels


Admin [Initial Role]
Log Out
Enter the Desired Frequency (MHz)
X
118.000
7
8
9
BkSp
4
5
6
C
1
2
3
Enter
-
0
.
Add
Edit
Delete
Back
Home
Select
Headset 1

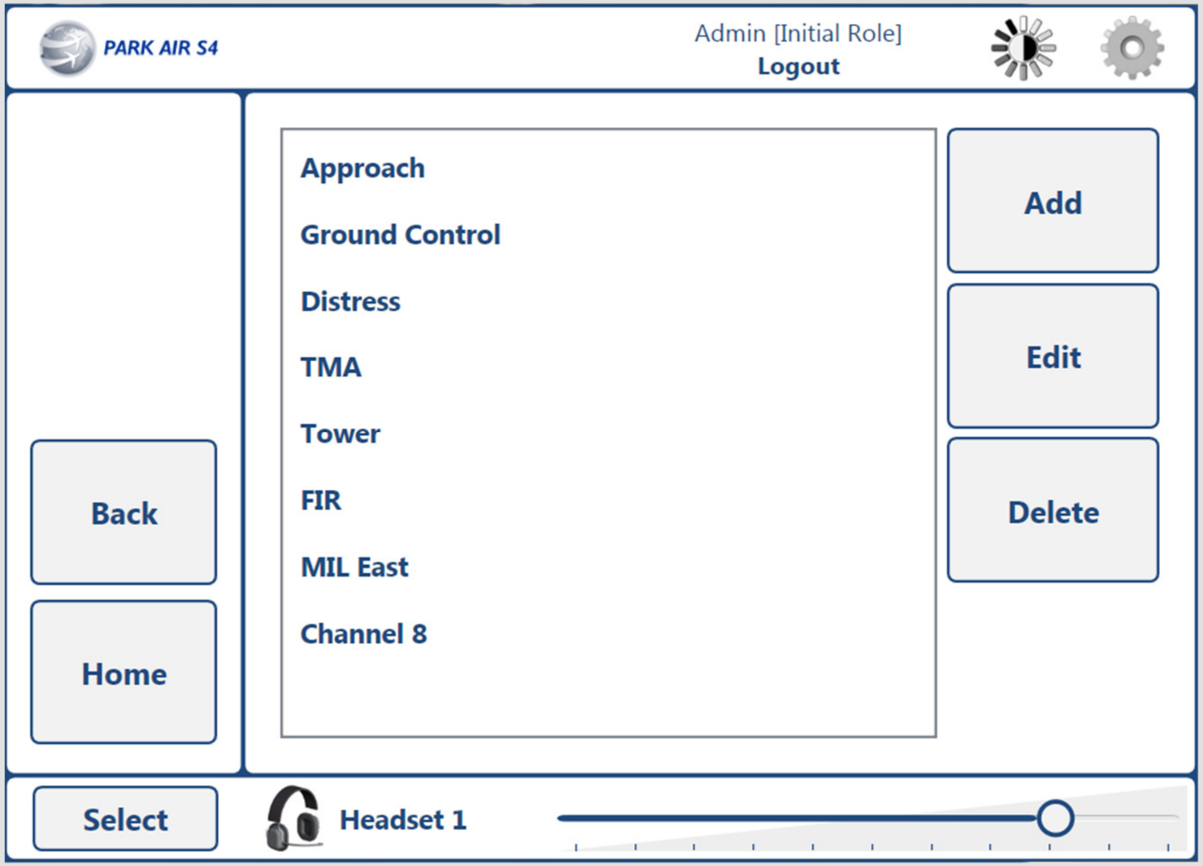
Channels


Enter Preset Name
Approach Normal
X
! ' - _ % ~ . * ( )
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
Shift Space BkSp C Enter

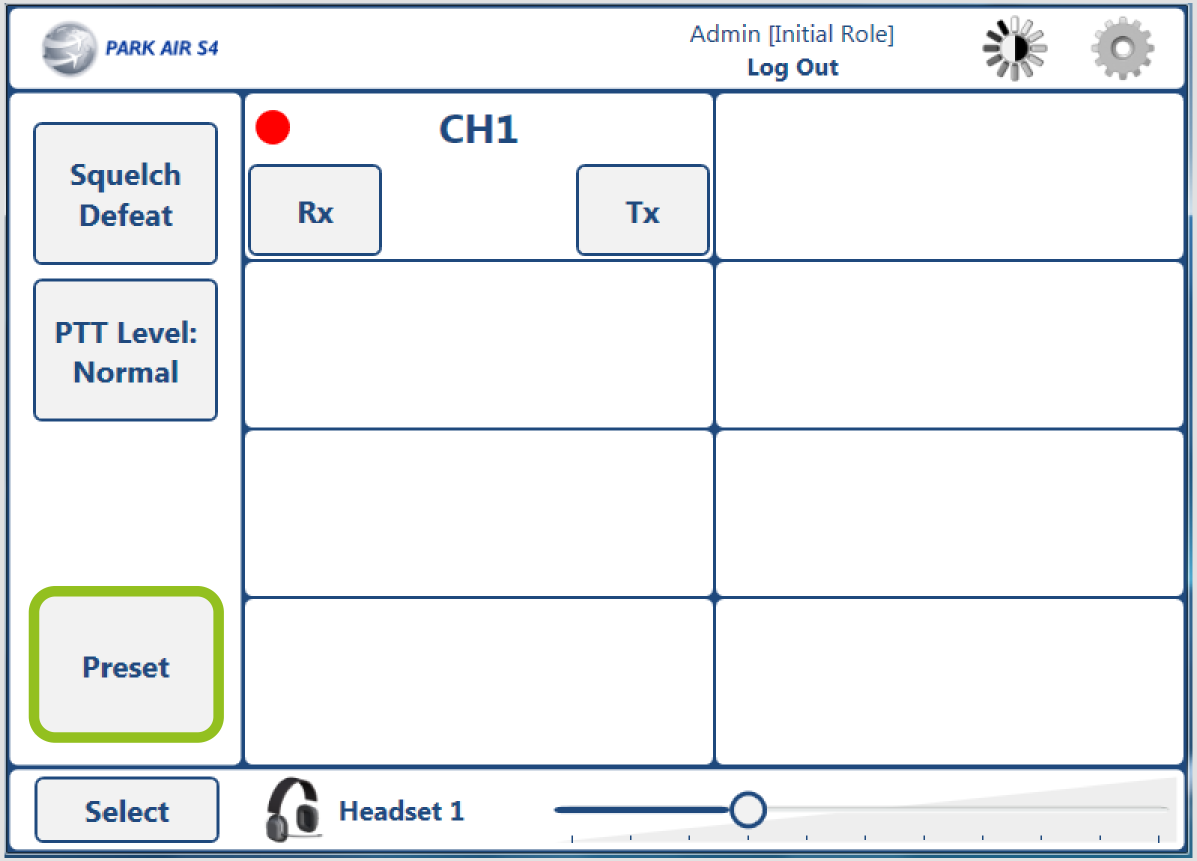
Channels


PARK AIR S4
Admin [Initial Role]
Log Out
118.000 MHz Approach Normal
119.750 MHz Approach Alternate
Add
Edit
Delete
Back
Home
Select
Headset 1

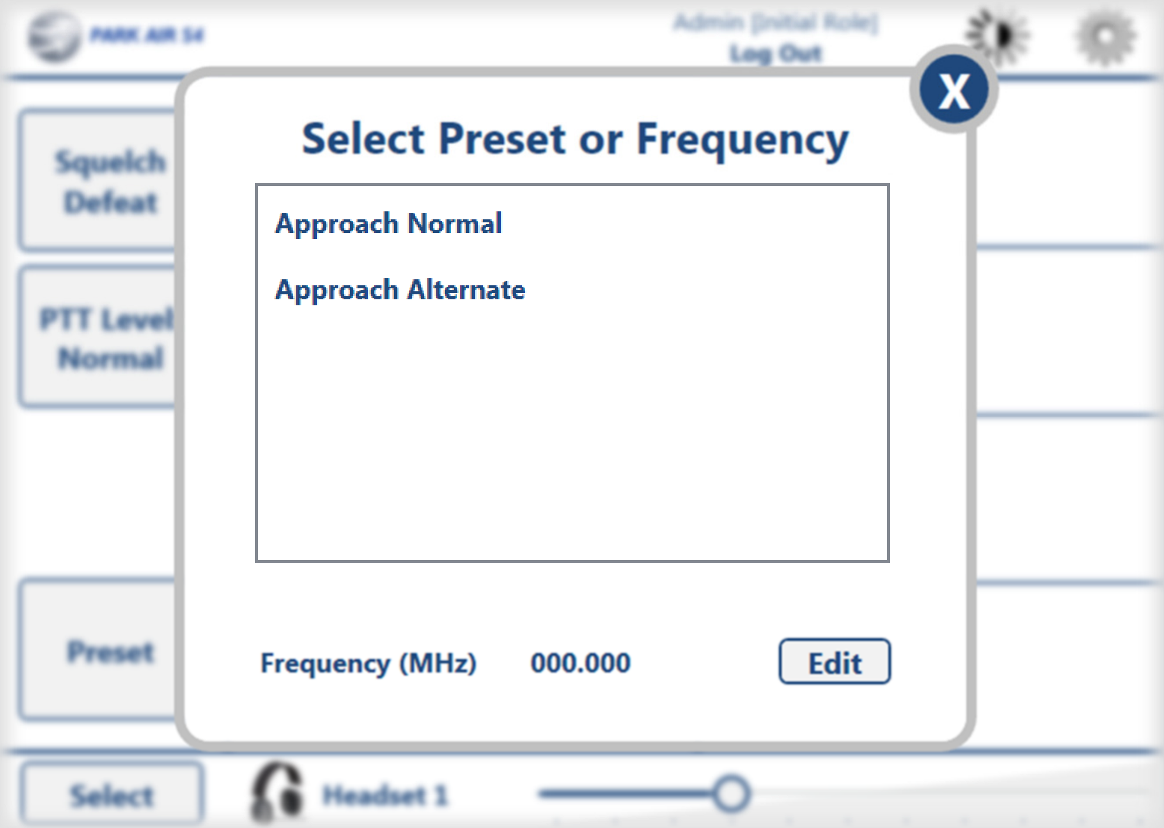
Channels


PARK AIR S4
Admin [Initial Role]
Logout
Approach
Ground Control
Distress
TMA
Tower
FIR
MIL East
Channel 8
Add
Edit
Delete
Back
Home
Select
Headset 1

Channels


PARK AIR S4
Admin [Initial Role]
Log Out
Squelch Defeat
PTT Level: Normal
CH1
Rx
Tx
Preset
Select
Headset 1

Channels

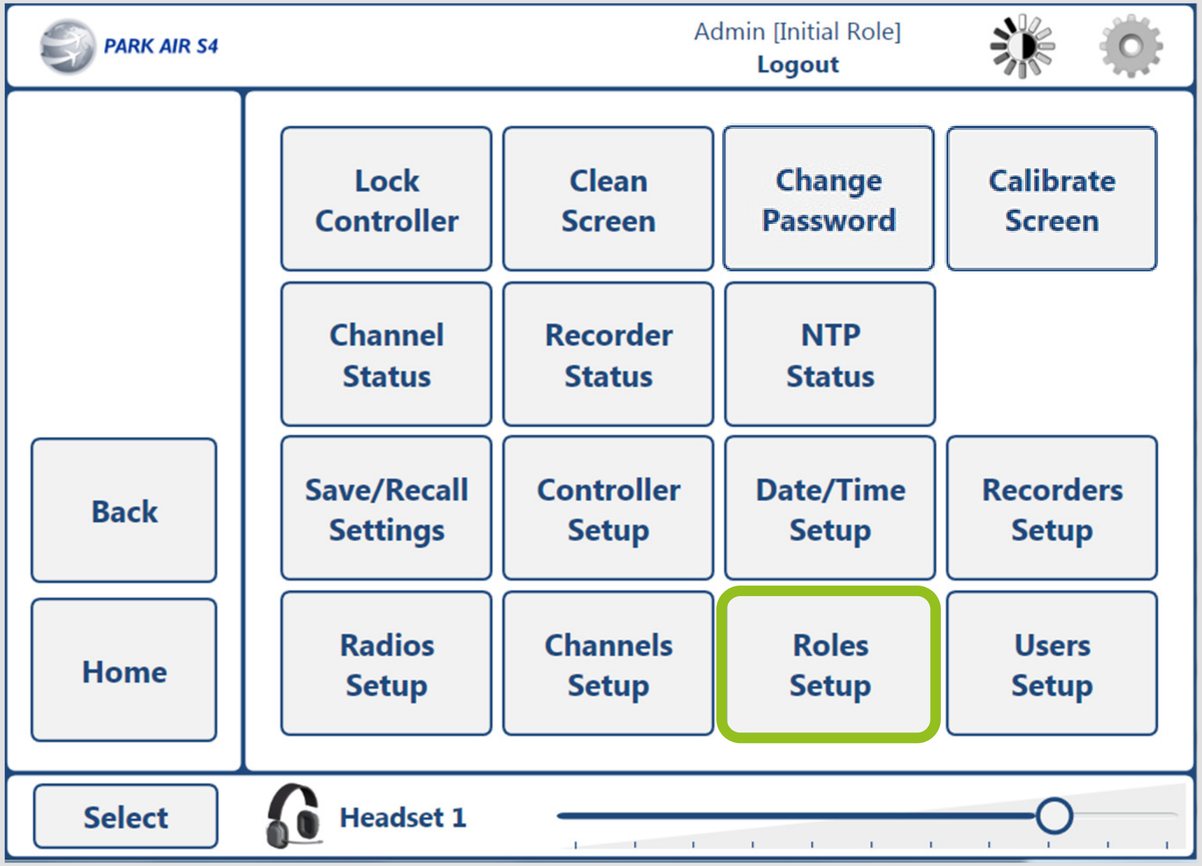

PARK AIR S4
Admin [Initial Role]
Log Out
Squelch Defeat
PTT Level Normal
Preset
Select
Headset 1
X
Select Preset or Frequency
Approach Normal
Approach Alternate
Frequency (MHz)
000.000
Edit

Roles Setup

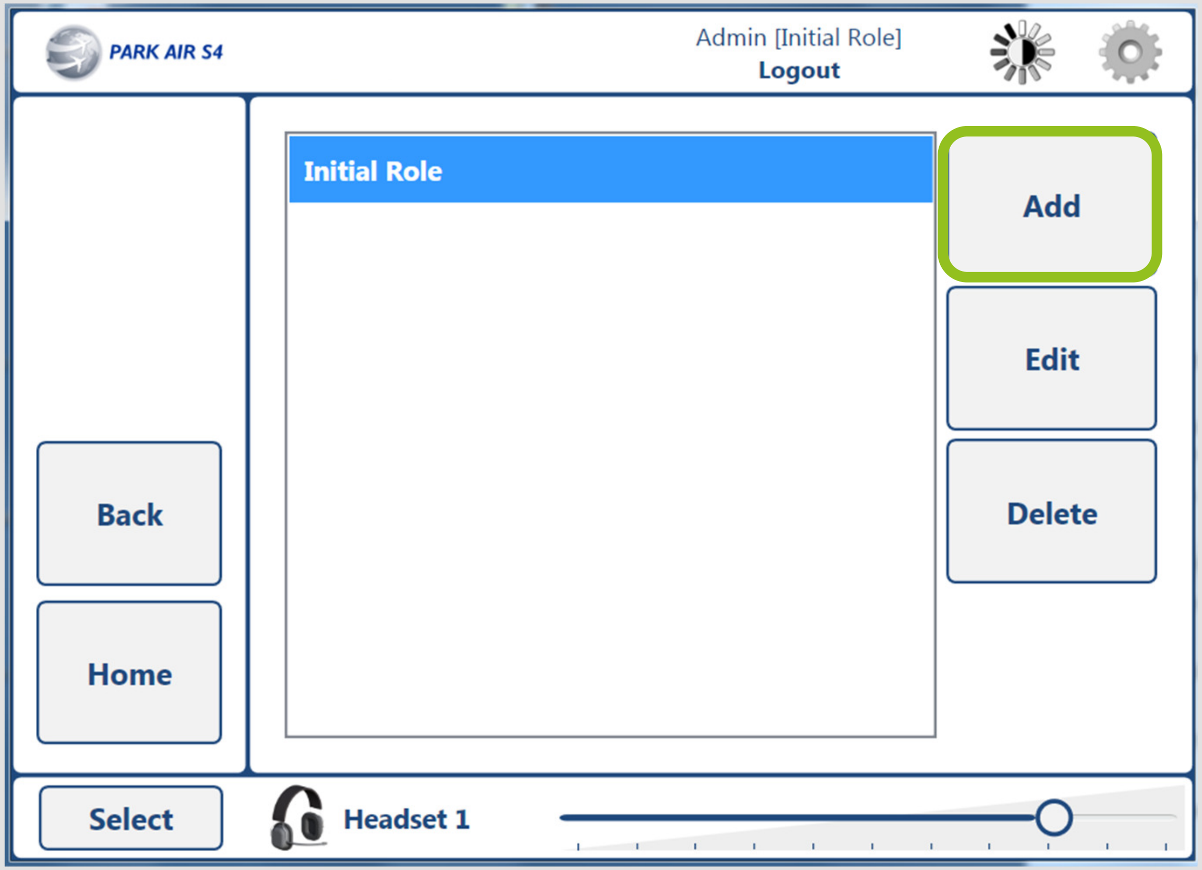
Roles

- Role based
- For example:
- Operations Manager
- Approach Controller
- Local Controller

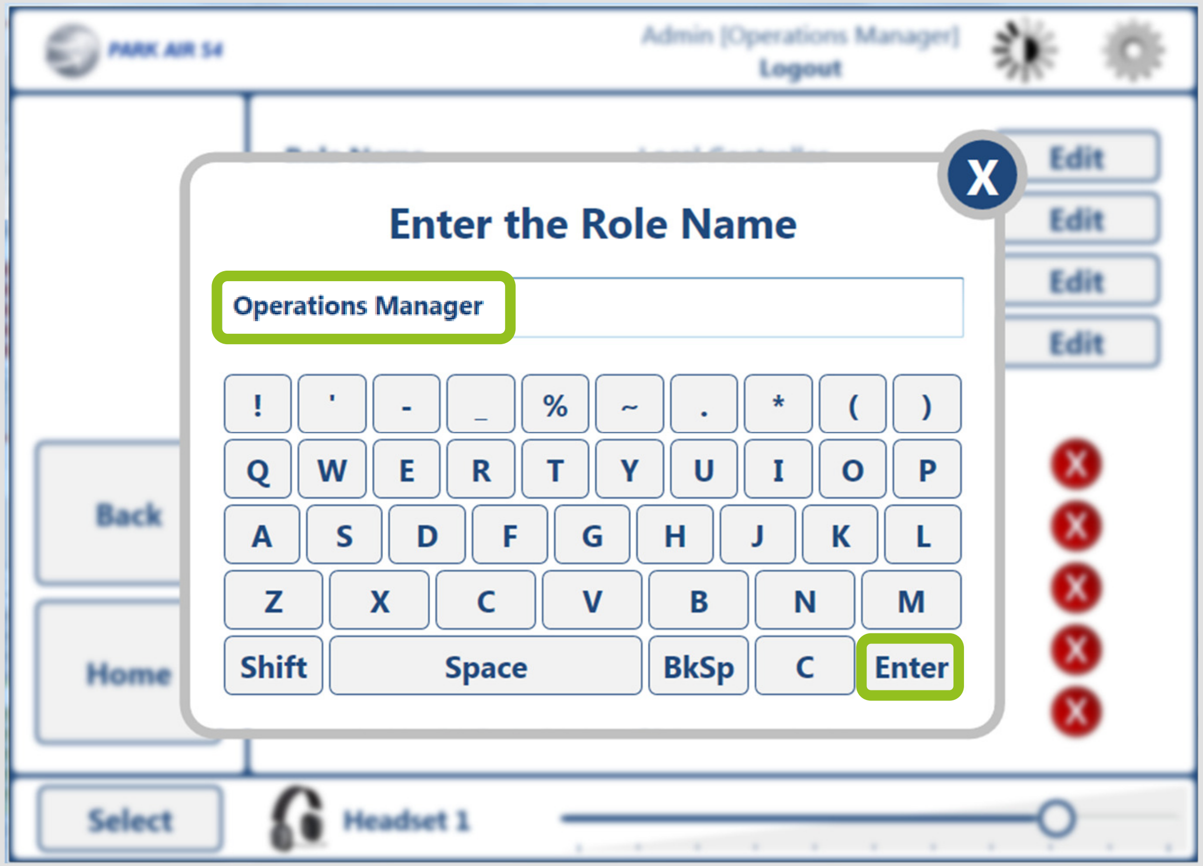
Roles


PARK AIR S4
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Change Password
Calibrate Screen
Channel Status
Recorder Status
NTP Status
Back
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Home
Radios Setup
Channels Setup
Roles Setup
Users Setup
Select
Headset 1

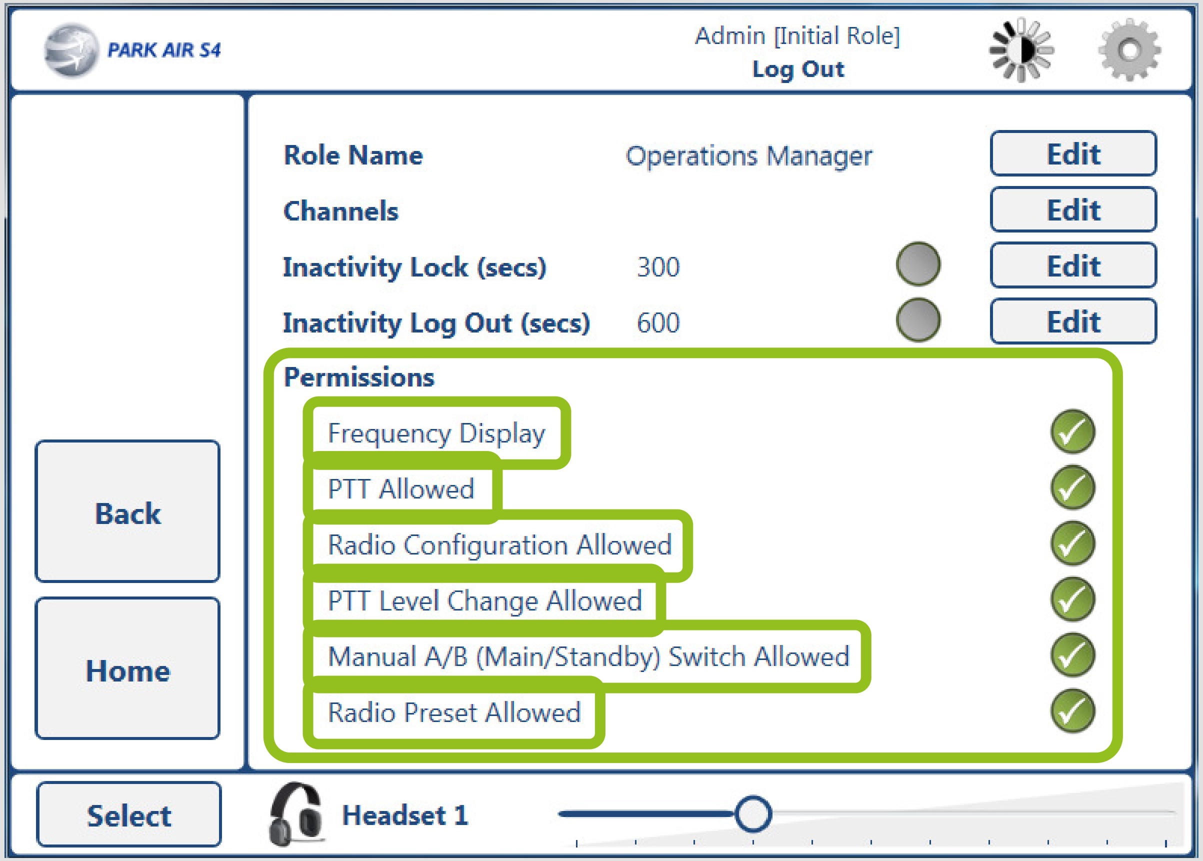
Roles


PARK AIR S4
Admin [Initial Role]
Logout
Initial Role
Add
Edit
Delete
Back
Home
Select
Headset 1

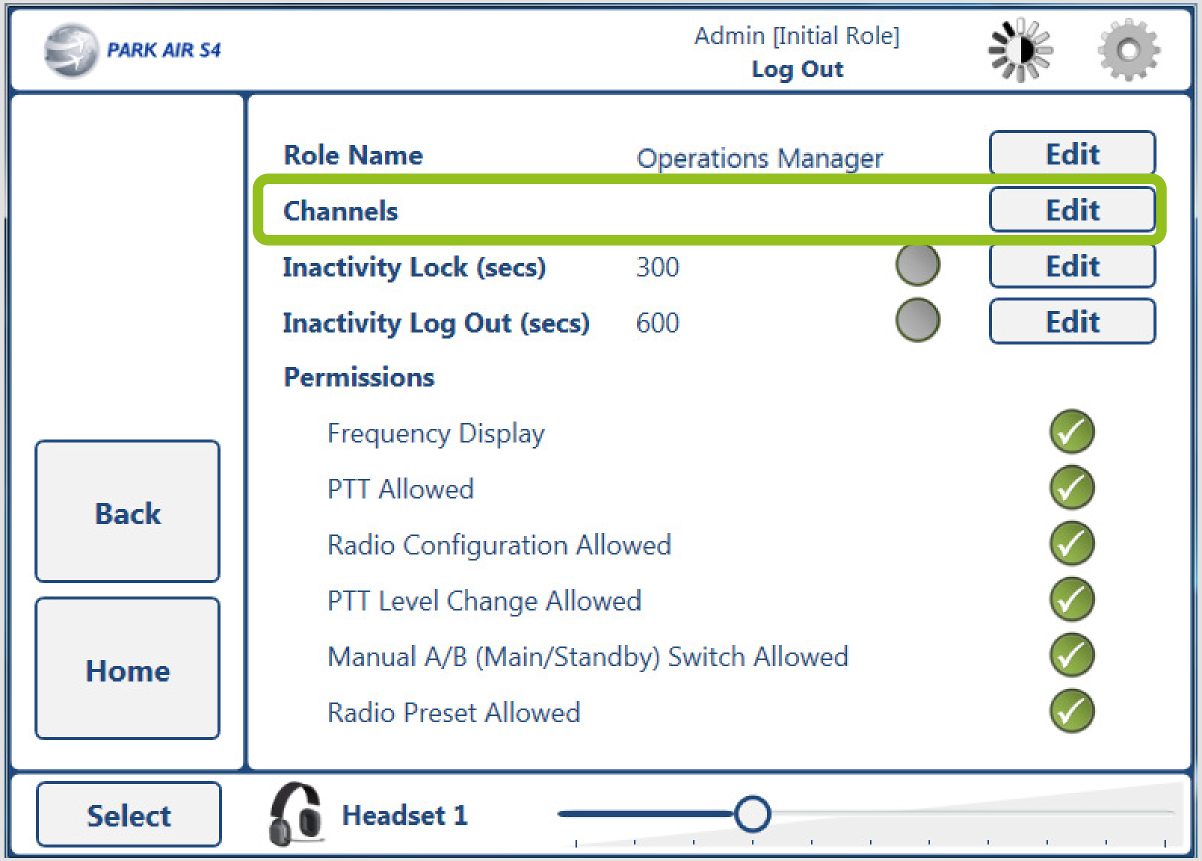
Roles


Enter the Role Name
Operations Manager
X
Edit
Edit
Edit
Edit
Back
Home
Select
Headset 1
! ' - _ % ~ . * ( )
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
Shift
Space
BkSp
C
Enter

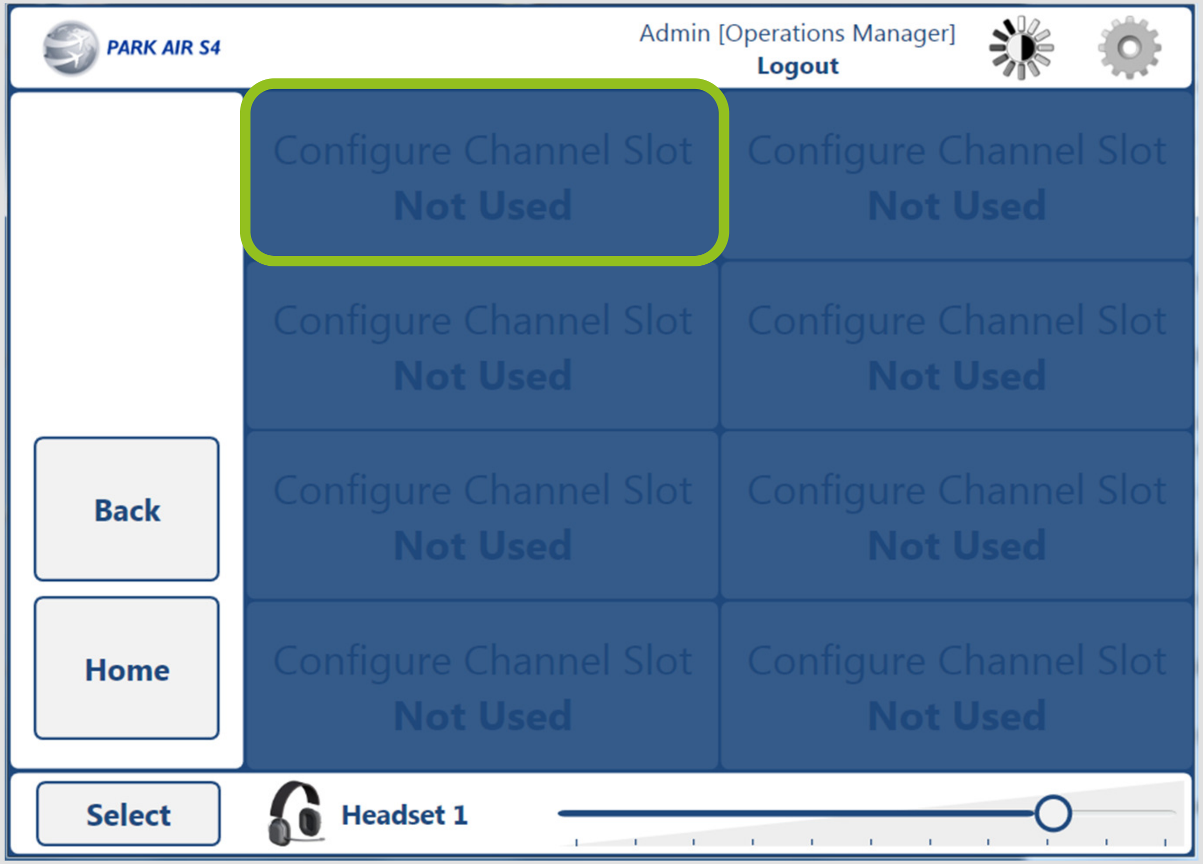
Roles


PARK AIR S4
Admin [Initial Role]
Log Out
Role Name
Operations Manager
Edit
Channels
Edit
Inactivity Lock (secs)
300
Edit
Inactivity Log Out (secs)
600
Edit
Permissions
Frequency Display
PTT Allowed
Radio Configuration Allowed
PTT Level Change Allowed
Manual A/B (Main/Standby) Switch Allowed
Radio Preset Allowed
Back
Home
Select
Headset 1

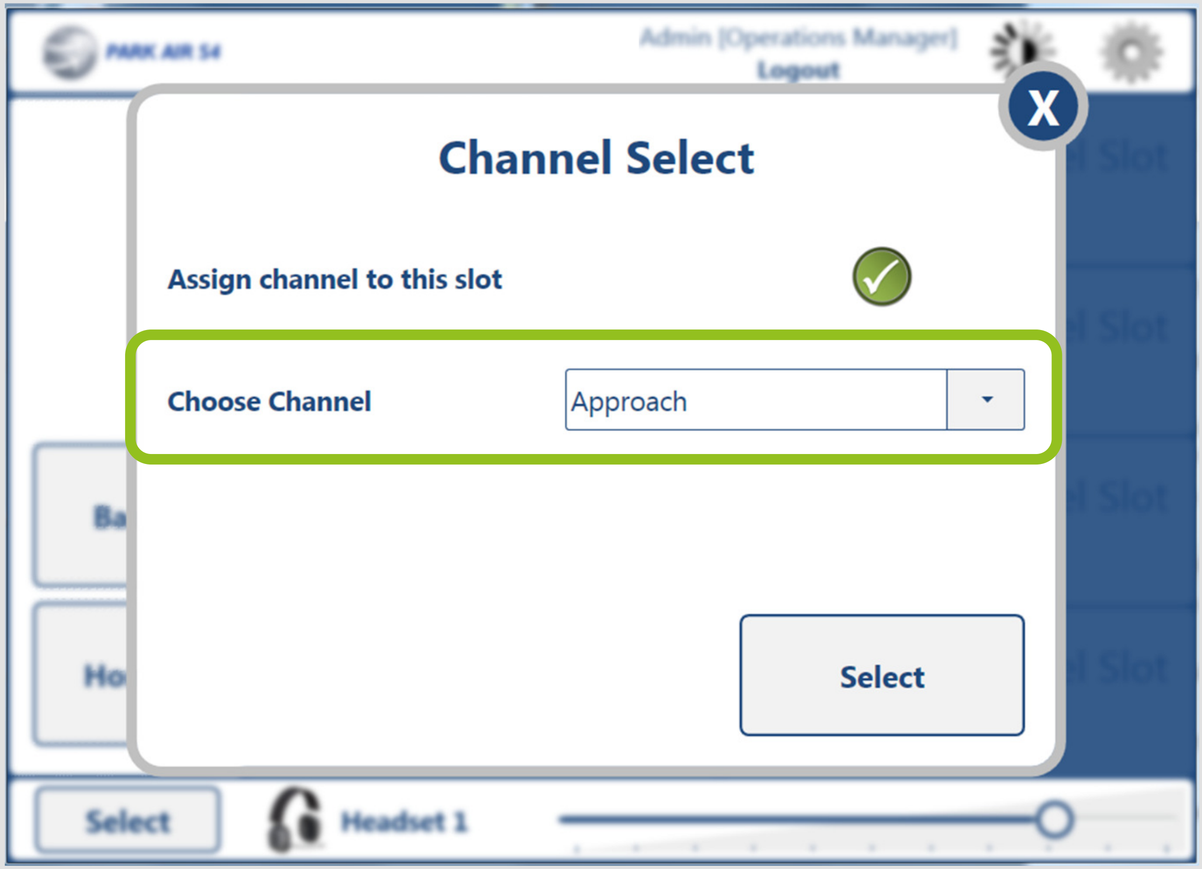
Roles


PARK AIR S4
Admin [Initial Role]
Log Out
Role Name
Operations Manager
Edit
Channels
Edit
Inactivity Lock (secs)
300
Edit
Inactivity Log Out (secs)
600
Edit
Permissions
Frequency Display
PTT Allowed
Radio Configuration Allowed
PTT Level Change Allowed
Manual A/B (Main/Standby) Switch Allowed
Radio Preset Allowed
Back
Home
Select
Headset 1

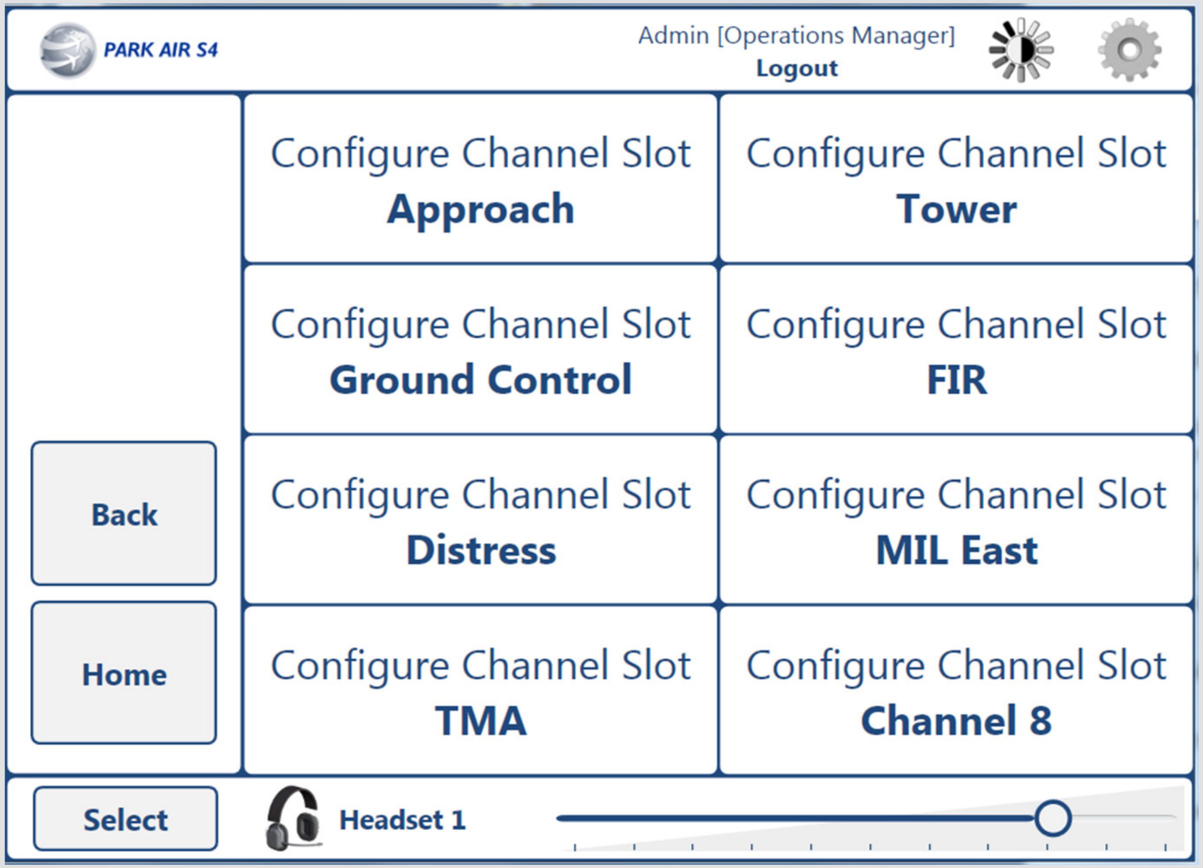
Roles


PARK AIR S4
Admin [Operations Manager]
Logout
Configure Channel Slot
Not Used
Configure Channel Slot
Not Used
Configure Channel Slot
Not Used
Configure Channel Slot
Not Used
Configure Channel Slot
Not Used
Configure Channel Slot
Not Used
Configure Channel Slot
Not Used
Configure Channel Slot
Not Used
Back
Home
Select
Headset 1

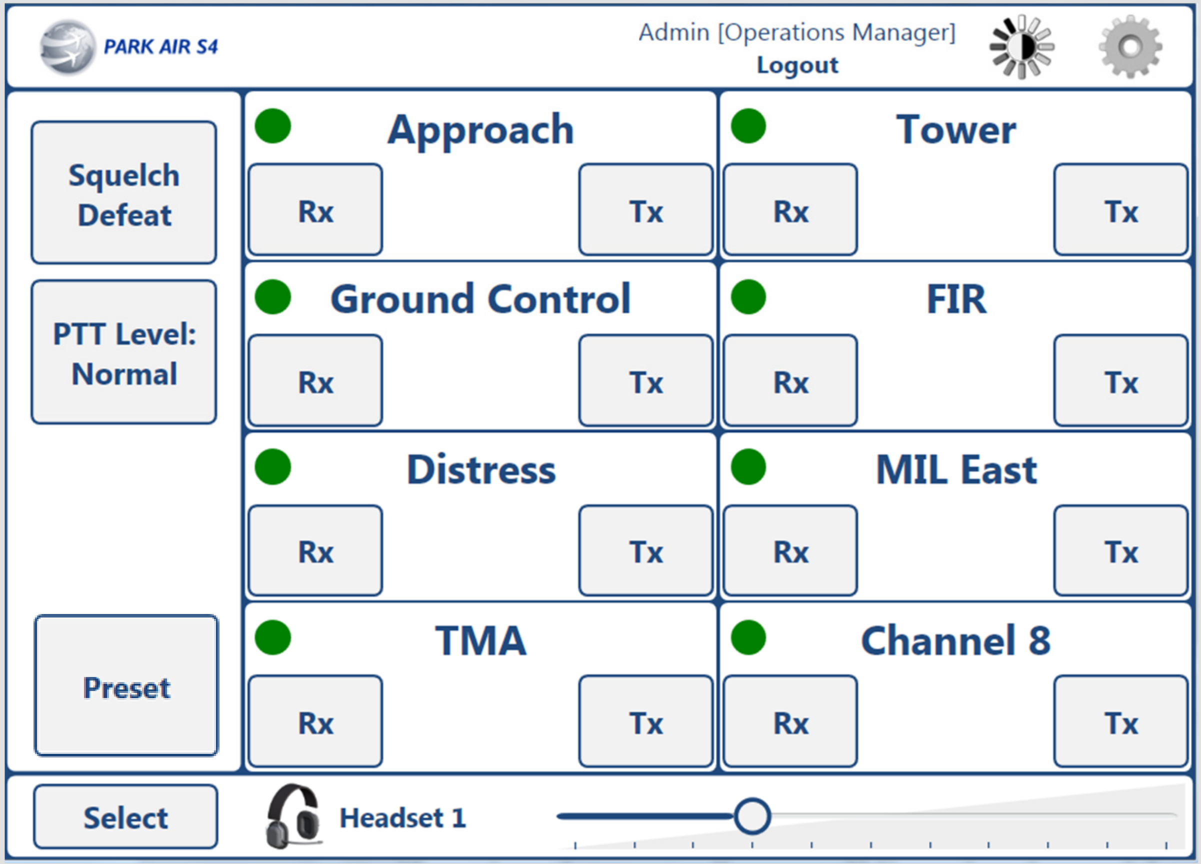
Roles


Channel Select
Assign channel to this slot
Choose Channel
Approach
Select
Headset 1

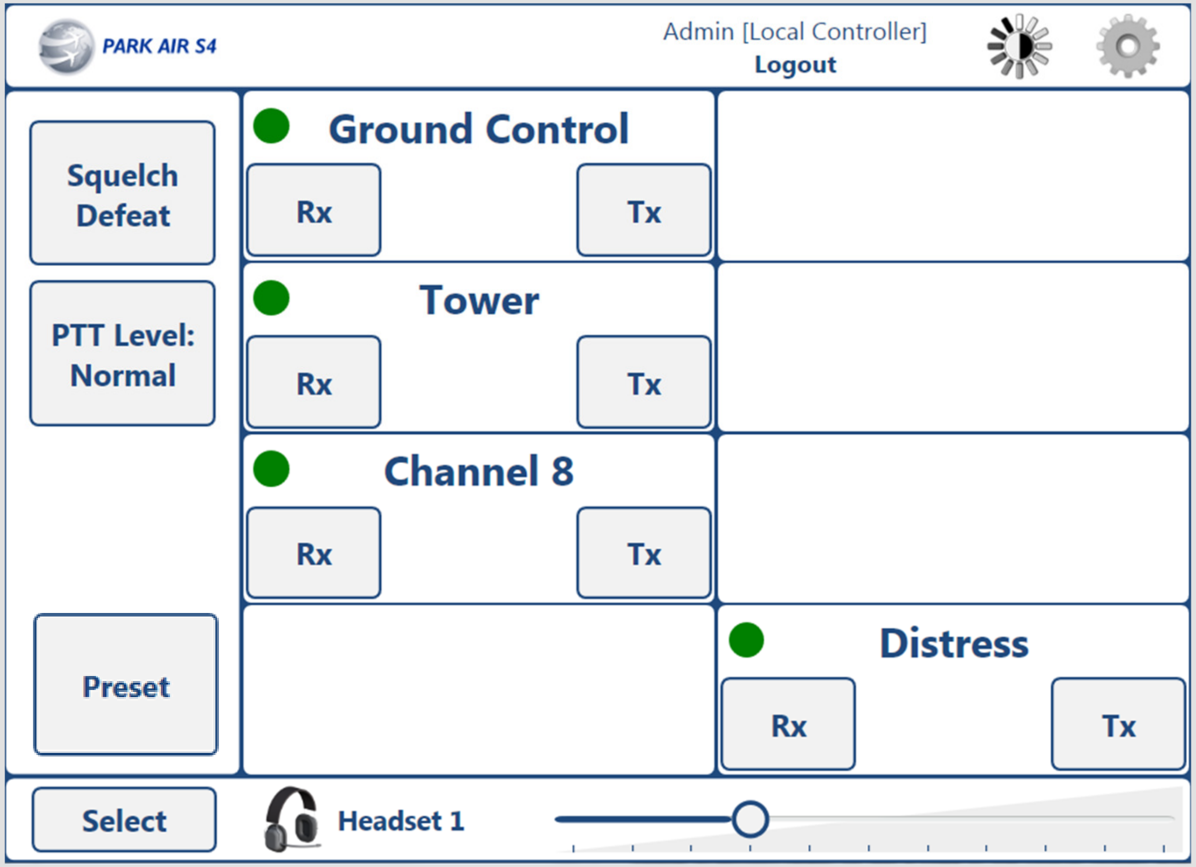
Roles


PARK AIR S4
Admin [Operations Manager]
Logout
Configure Channel Slot
Approach
Configure Channel Slot
Tower
Configure Channel Slot
Ground Control
Configure Channel Slot
FIR
Back
Configure Channel Slot
Distress
Configure Channel Slot
MIL East
Home
Configure Channel Slot
TMA
Configure Channel Slot
Channel 8
Select
Headset 1

Roles


PARK AIR S4
Admin [Operations Manager]
Logout
Squelch Defeat
PTT Level: Normal
Preset
Approach
Tower
Ground Control
FIR
Distress
MIL East
TMA
Channel 8
Rx
Tx
Select
Headset 1

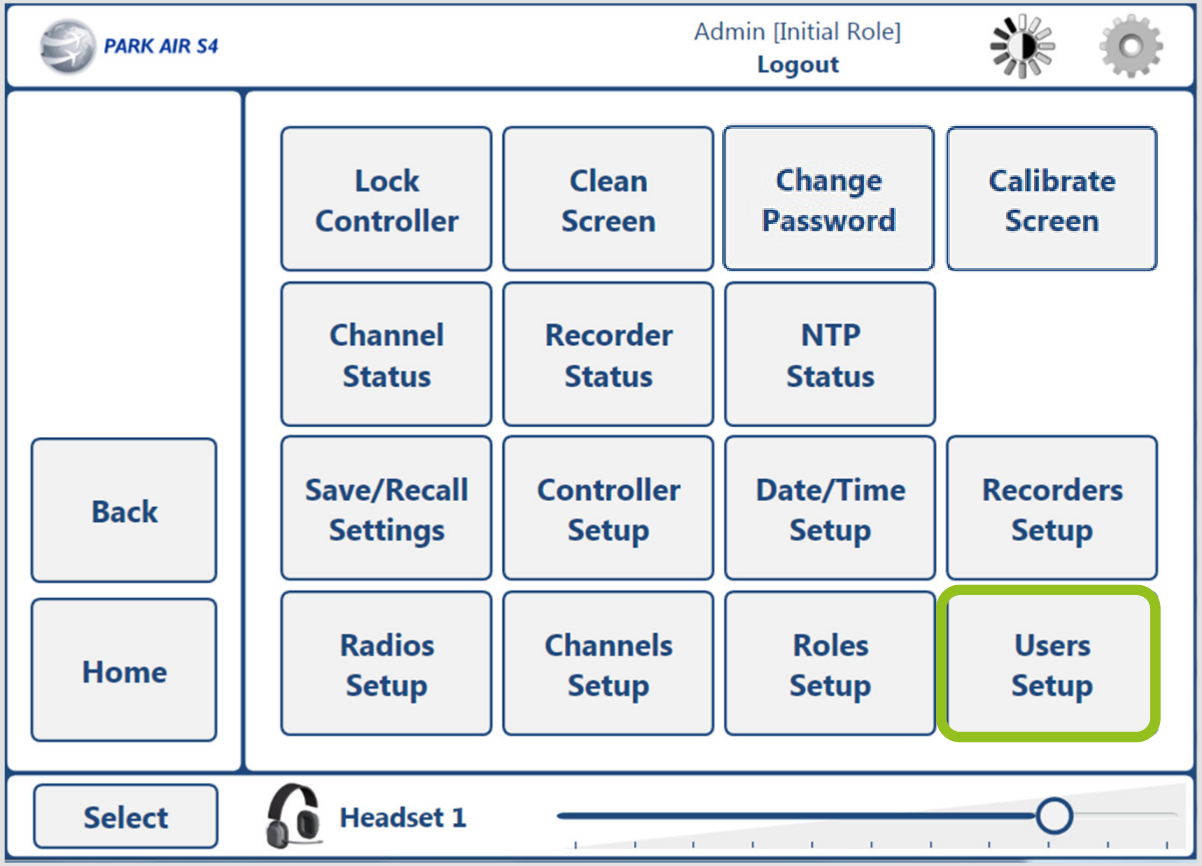
Roles


PARK AIR S4
Admin [Local Controller]
Logout
Squelch Defeat
PTT Level: Normal
Preset
Ground Control
Rx
Tx
Tower
Rx
Tx
Channel 8
Rx
Tx
Distress
Rx
Tx
Select
Headset 1

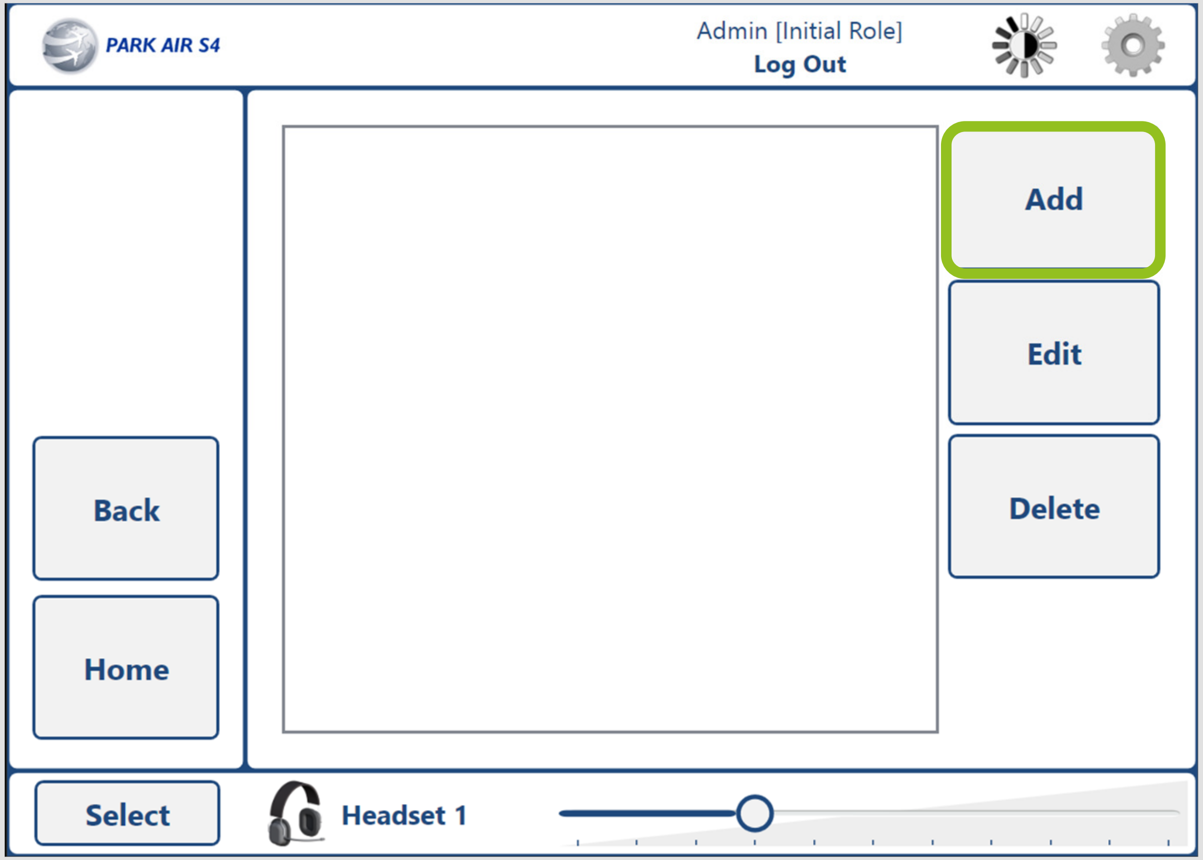
4

Users Setup

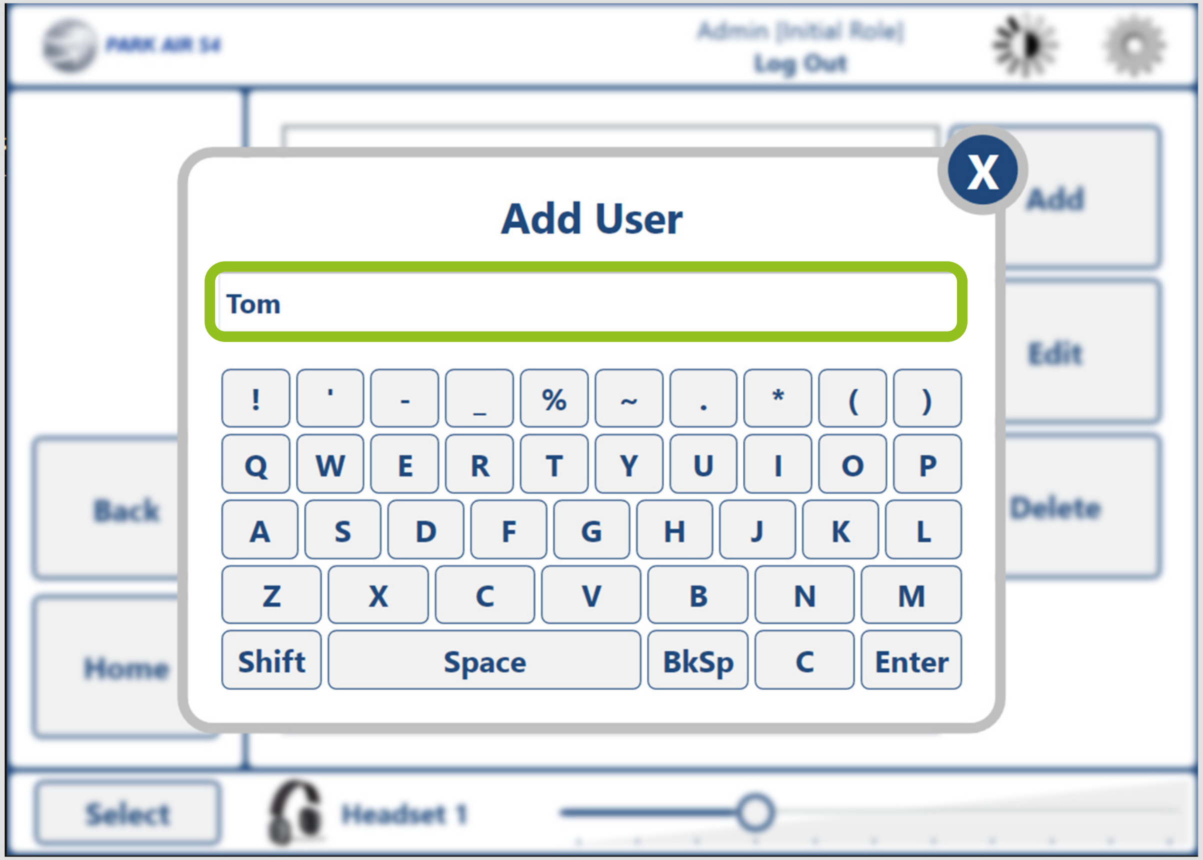
Users


PARK AIR S4
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Change Password
Calibrate Screen
Channel Status
Recorder Status
NTP Status
Back
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Home
Radios Setup
Channels Setup
Roles Setup
Users Setup
Select
Headset 1

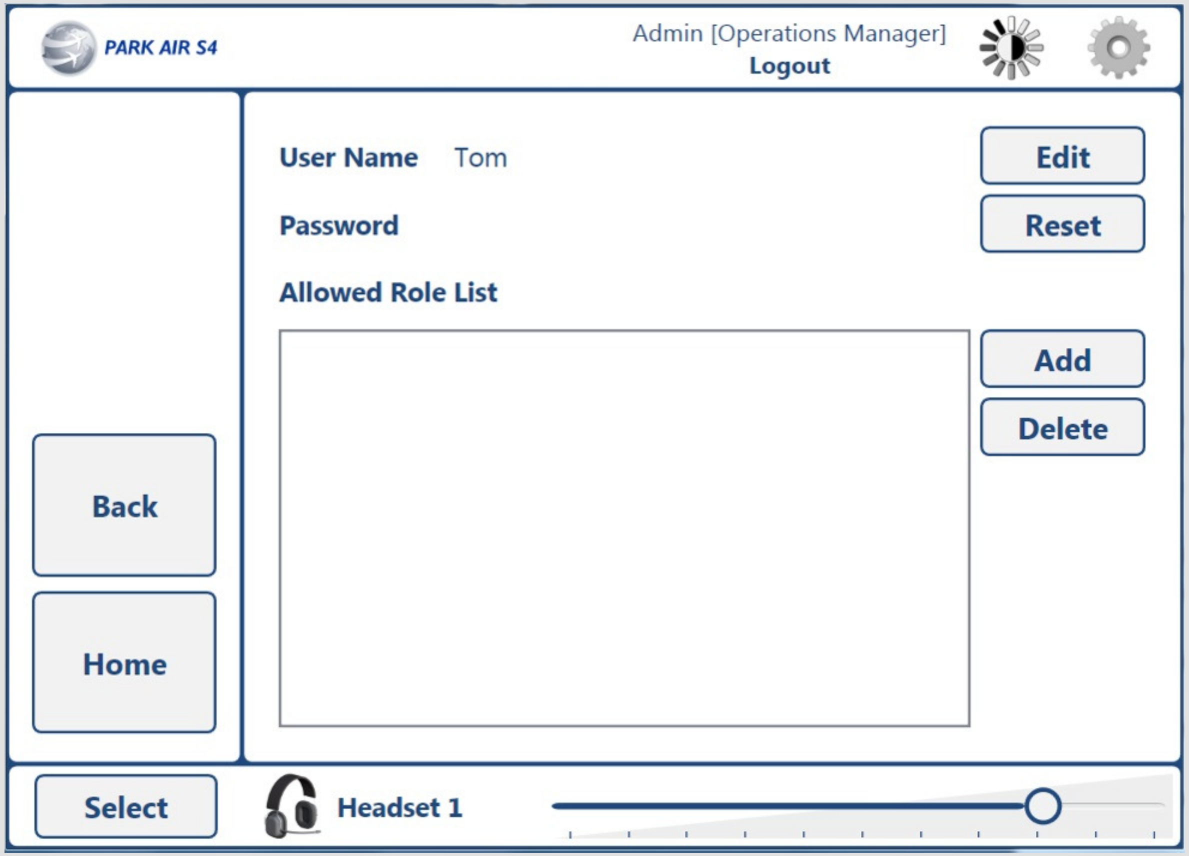
Users


PARK AIR S4
Admin [Initial Role]
Log Out
Add
Edit
Delete
Back
Home
Select
Headset 1

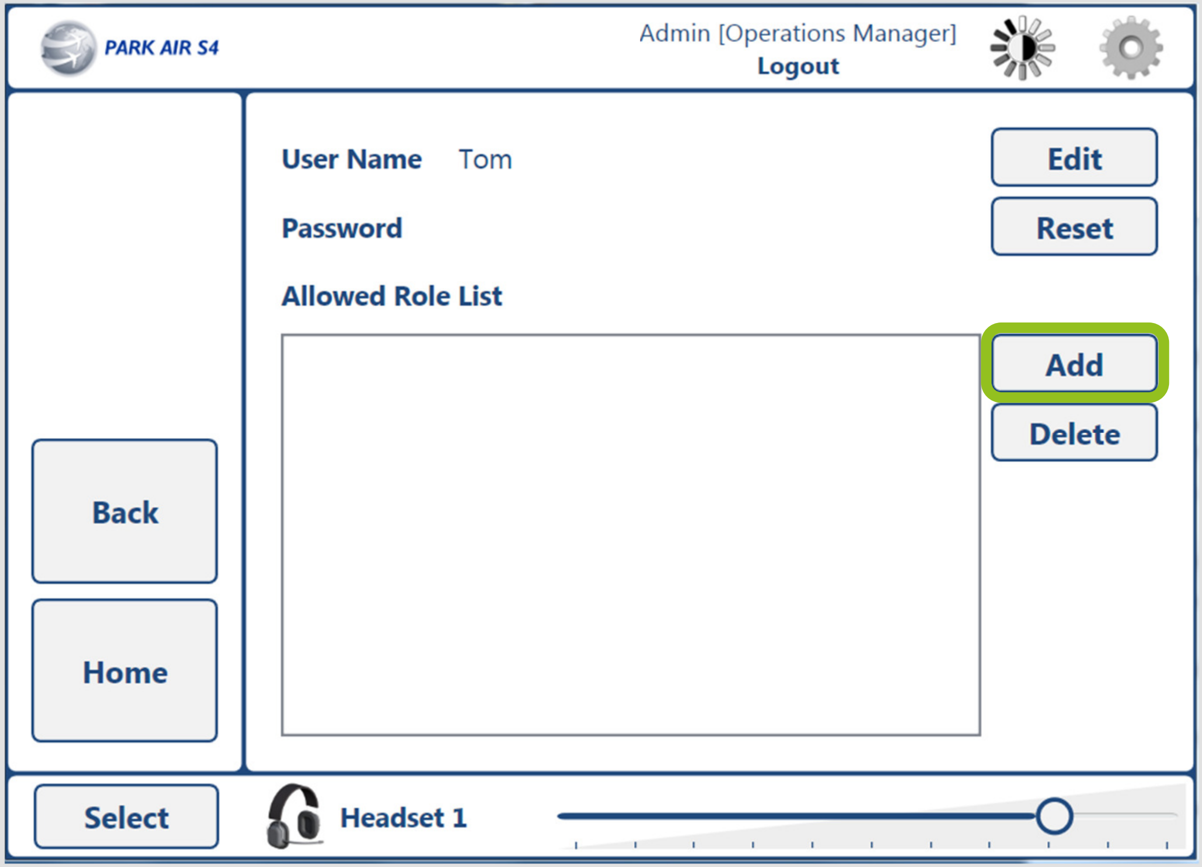
Users


Add User
Tom
! ' - _ % ~ . * ( )
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
Shift
Space
BkSp
C
Enter
X
Add
Edit
Delete
Back
Home
Select
Headset 1
Log Out

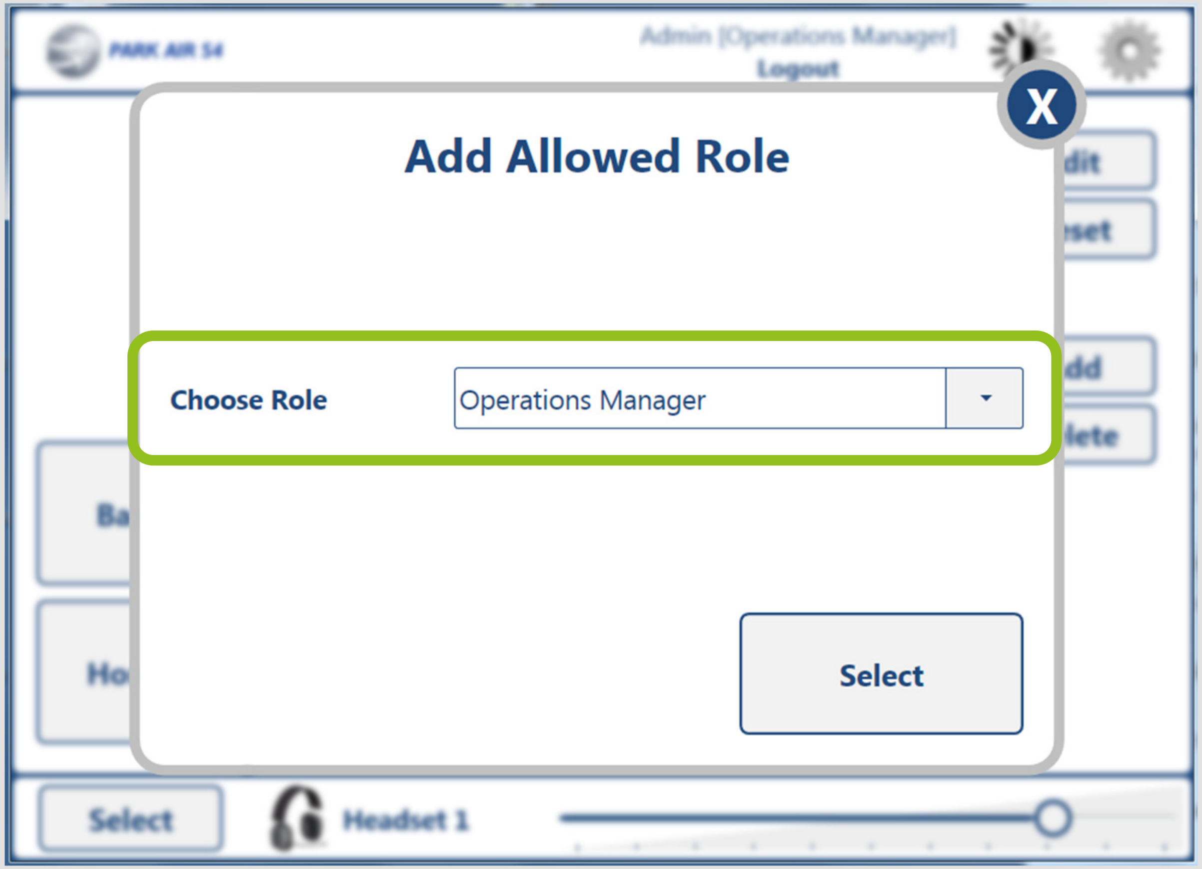
Users


PARK AIR S4
Admin [Operations Manager]
Logout
User Name Tom
Password
Allowed Role List
Edit
Reset
Add
Delete
Back
Home
Select
Headset 1

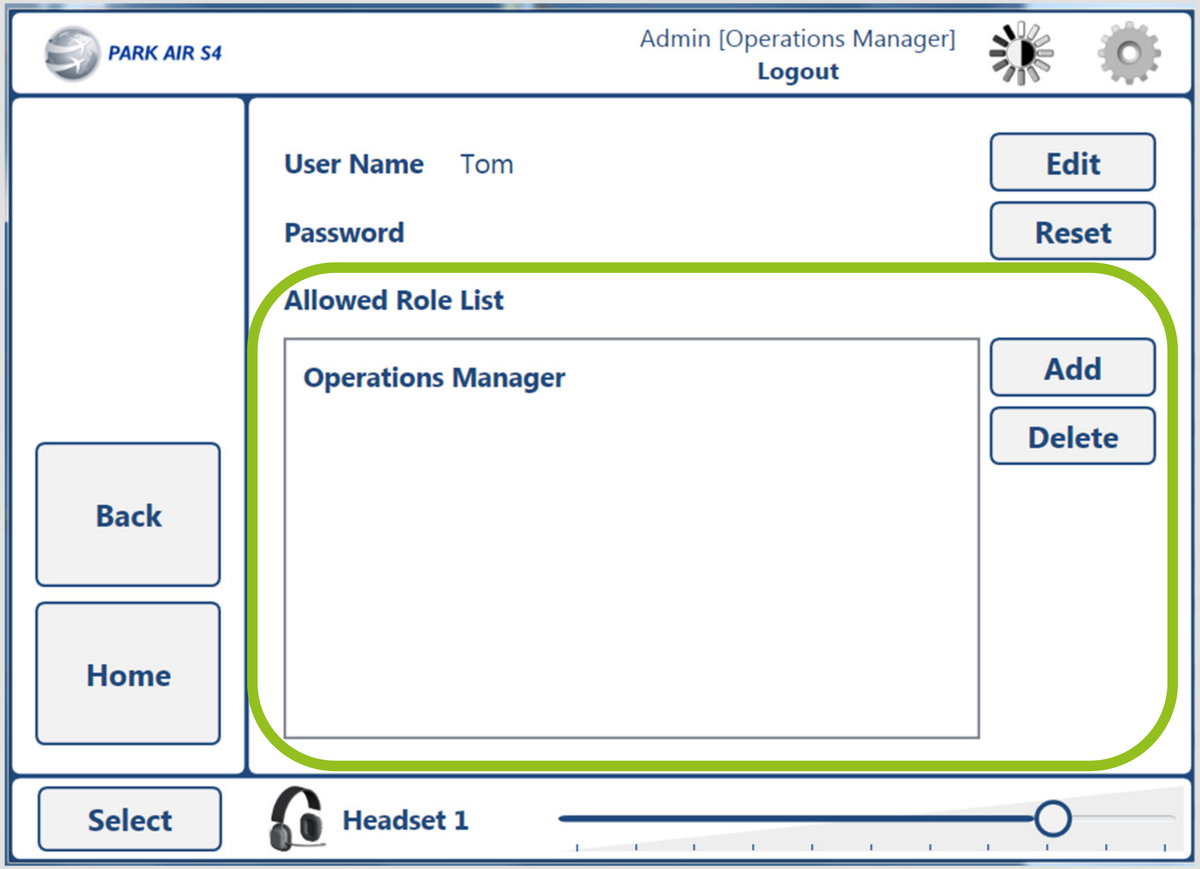
Users


PARK AIR S4
Admin [Operations Manager]
Logout
User Name
Tom
Edit
Password
Reset
Allowed Role List
Add
Delete
Back
Home
Select
Headset 1

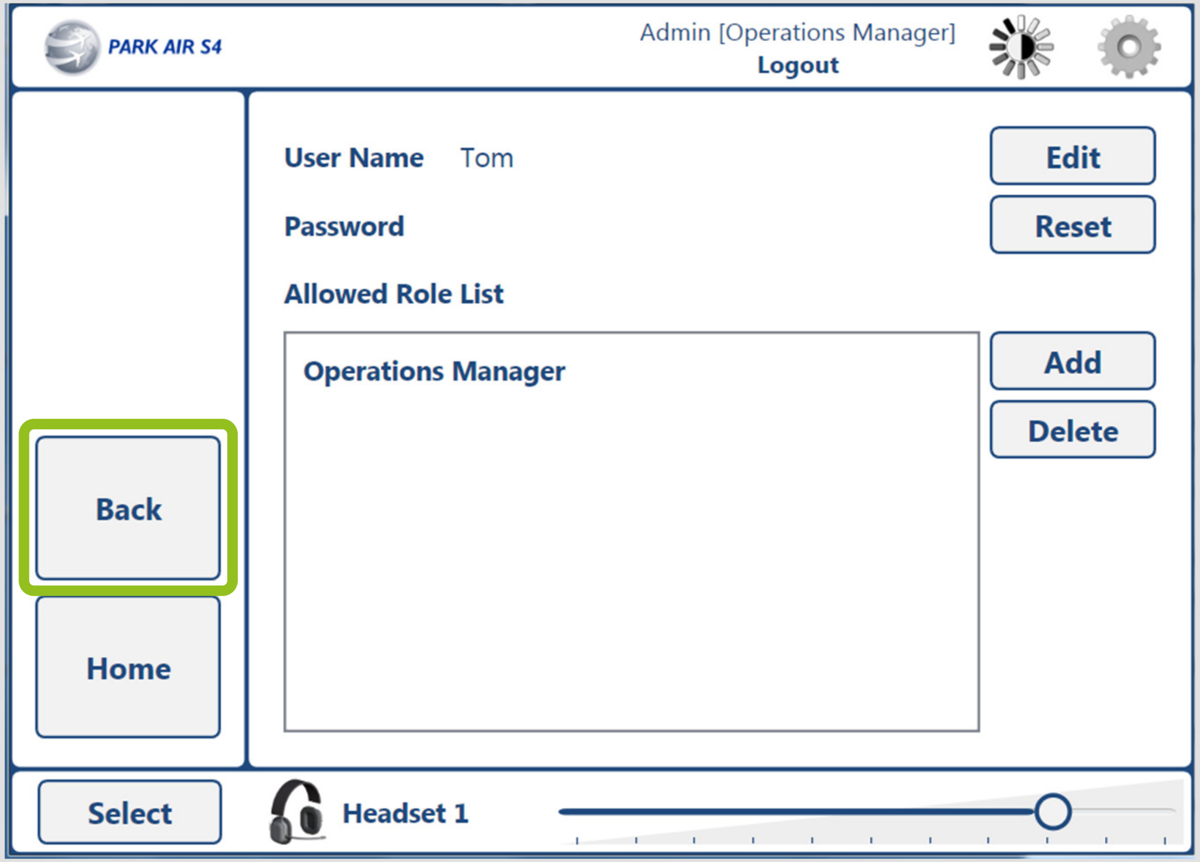
Users



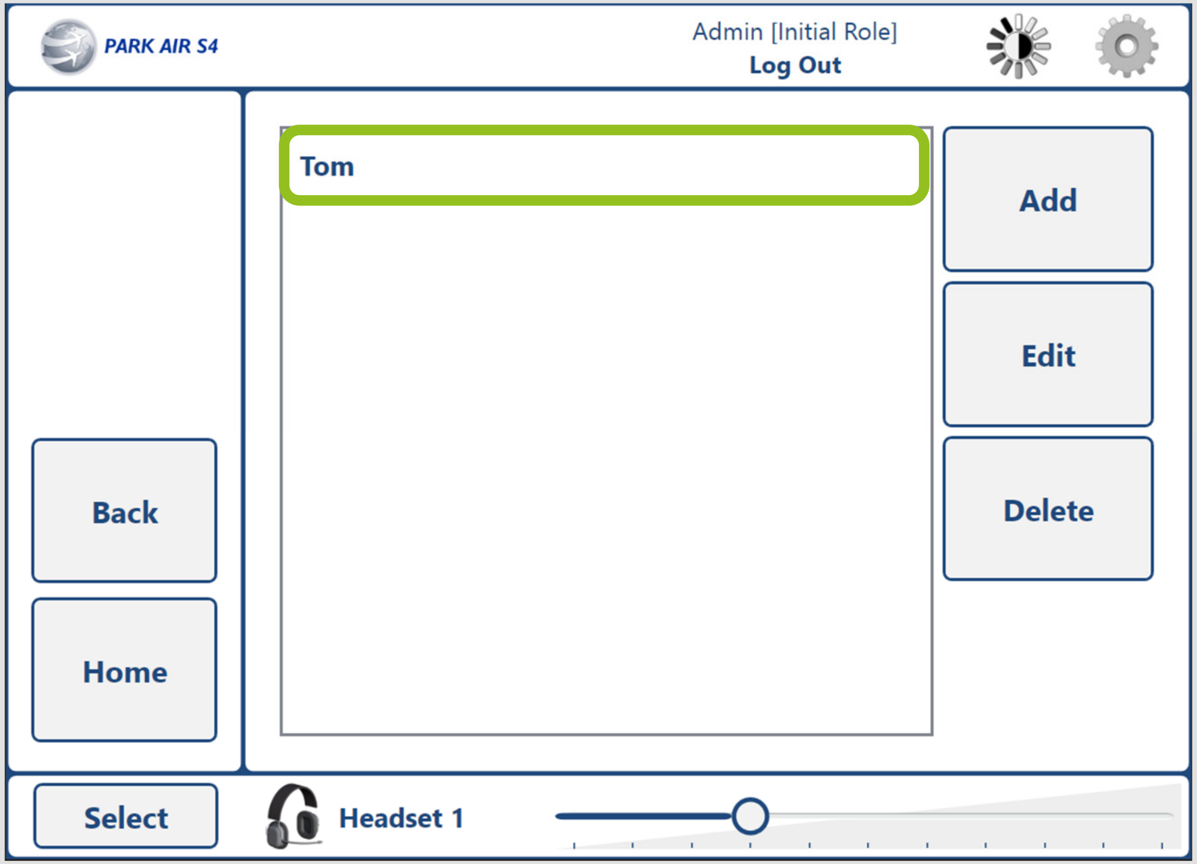
Users


PARK AIR S4
Admin [Operations Manager]
Logout
User Name
Tom
Edit
Password
Reset
Allowed Role List
Operations Manager
Add
Delete
Back
Home
Select
Headset 1

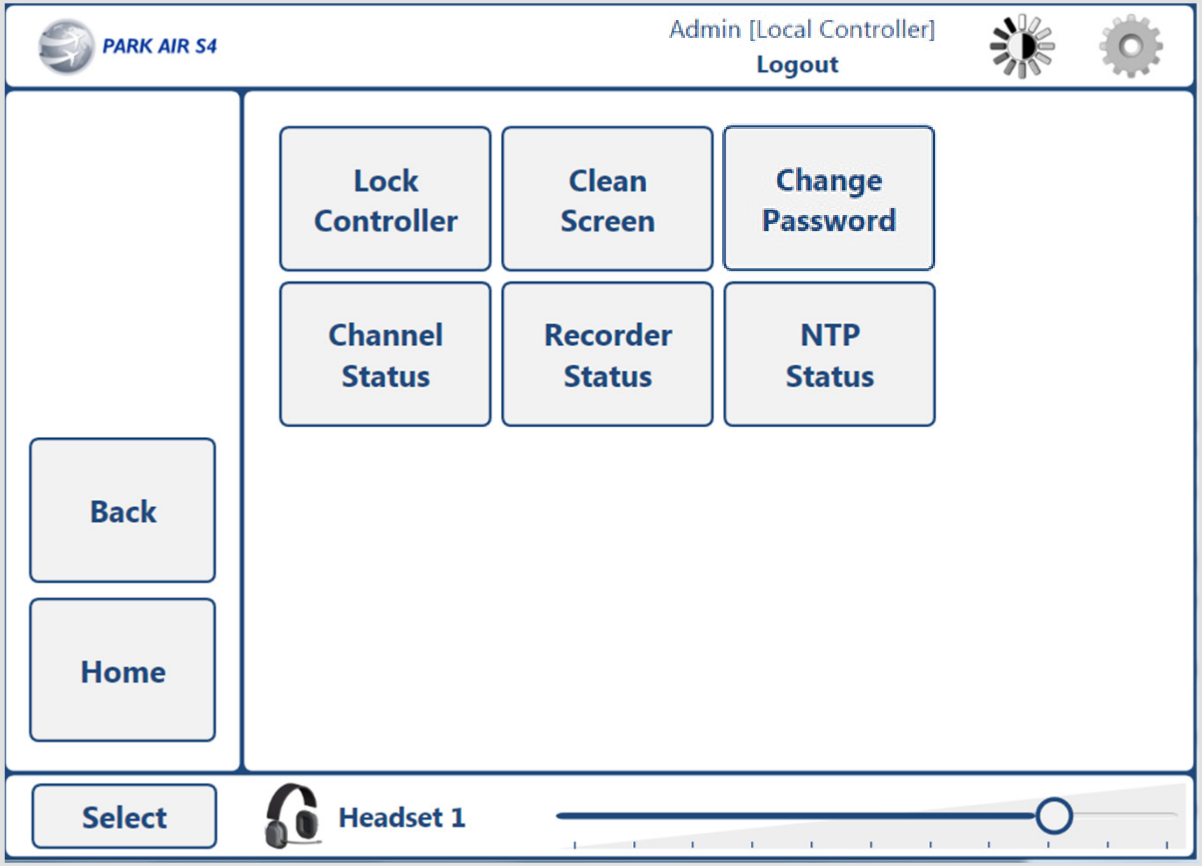
Users


PARK AIR S4
Admin [Operations Manager]
Logout
User Name Tom
Password
Allowed Role List
Operations Manager
Edit
Reset
Add
Delete
Back
Home
Select
Headset 1

Users


PARK AIR S4
Admin [Initial Role]
Log Out
Tom
Add
Edit
Delete
Back
Home
Select
Headset 1

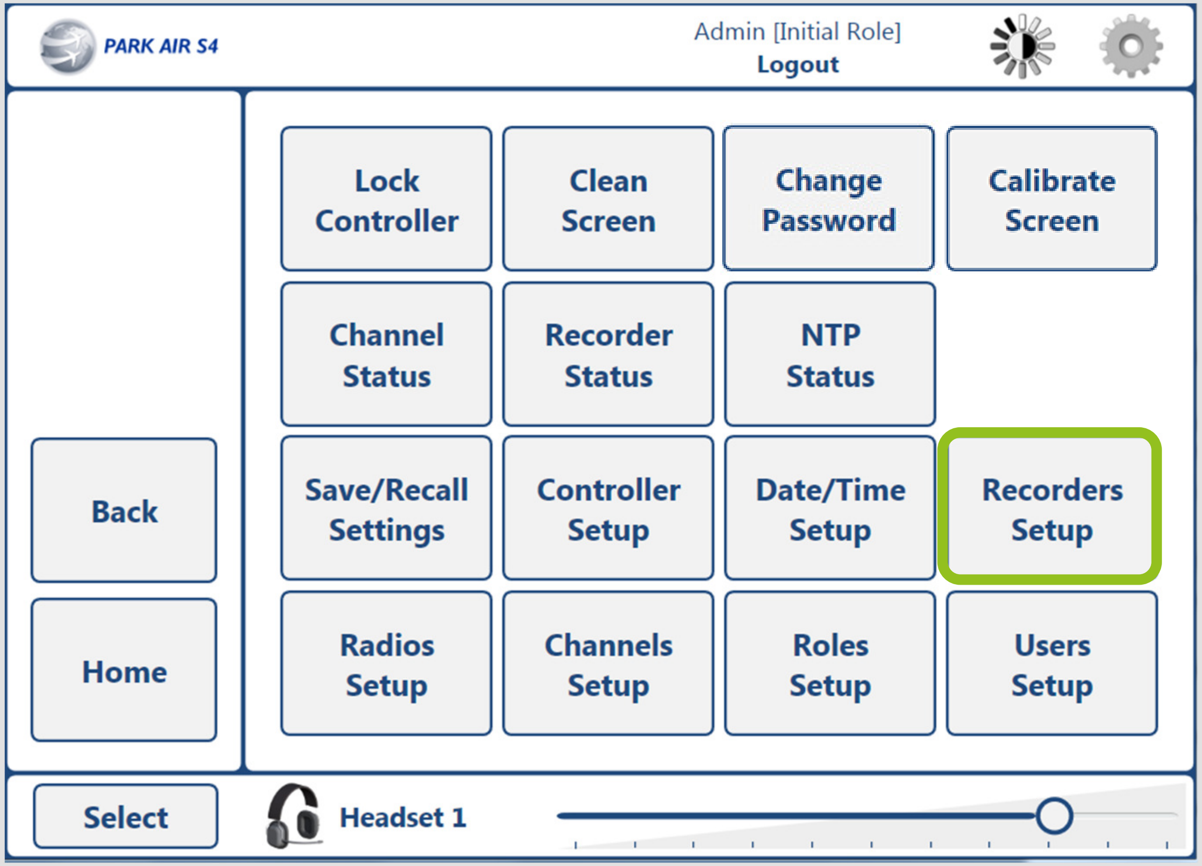
User screen


PARK AIR S4
Admin [Local Controller]
Logout
Lock Controller
Clean Screen
Change Password
Channel Status
Recorder Status
NTP Status
Back
Home
Select
Headset 1

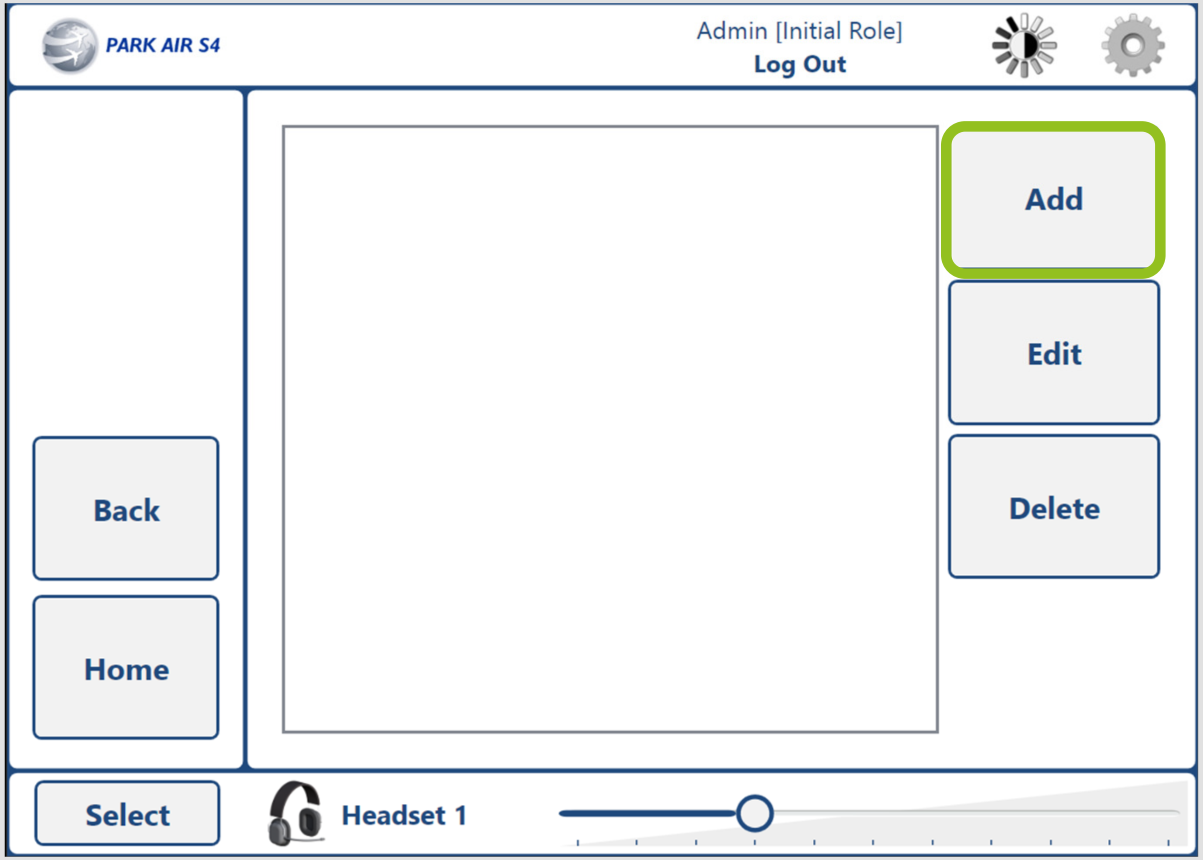
4

Recorders Setup

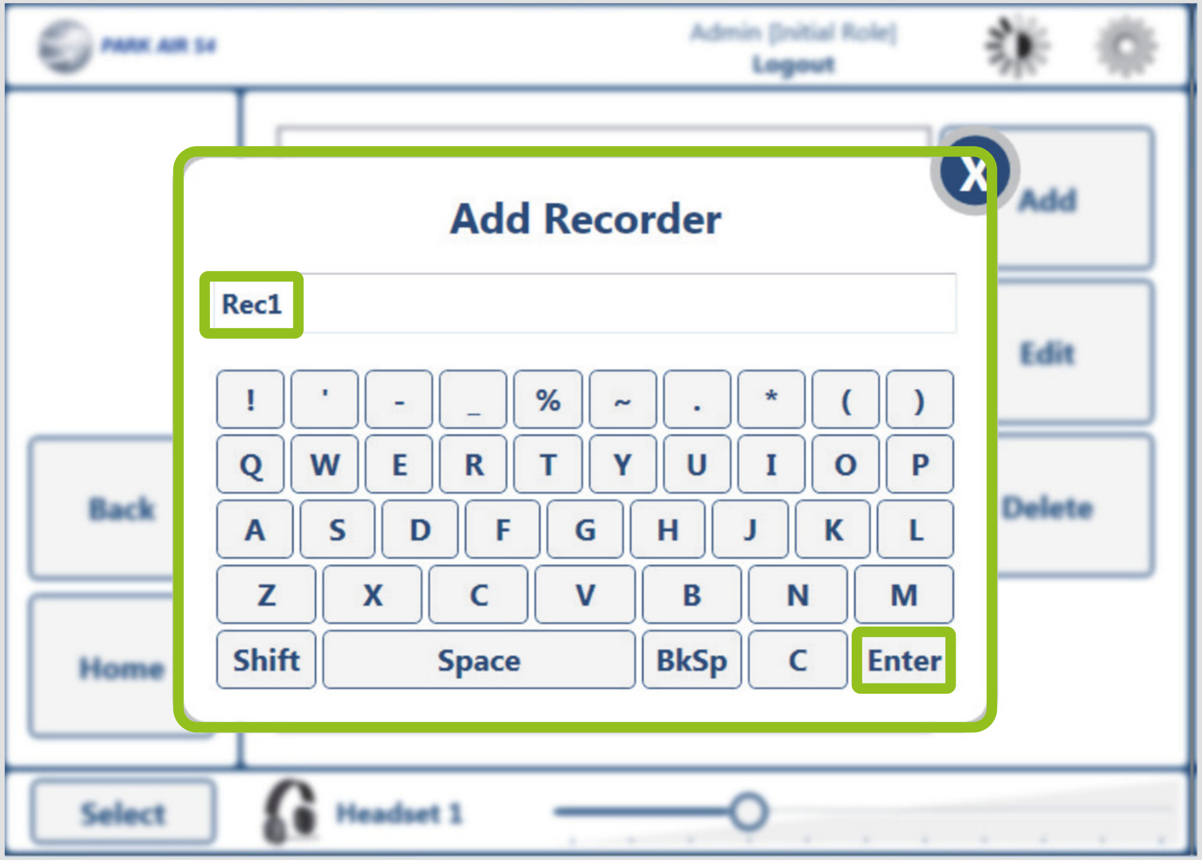
Recorders


PARK AIR S4
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Change Password
Calibrate Screen
Channel Status
Recorder Status
NTP Status
Back
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Home
Radios Setup
Channels Setup
Roles Setup
Users Setup
Select
Headset 1

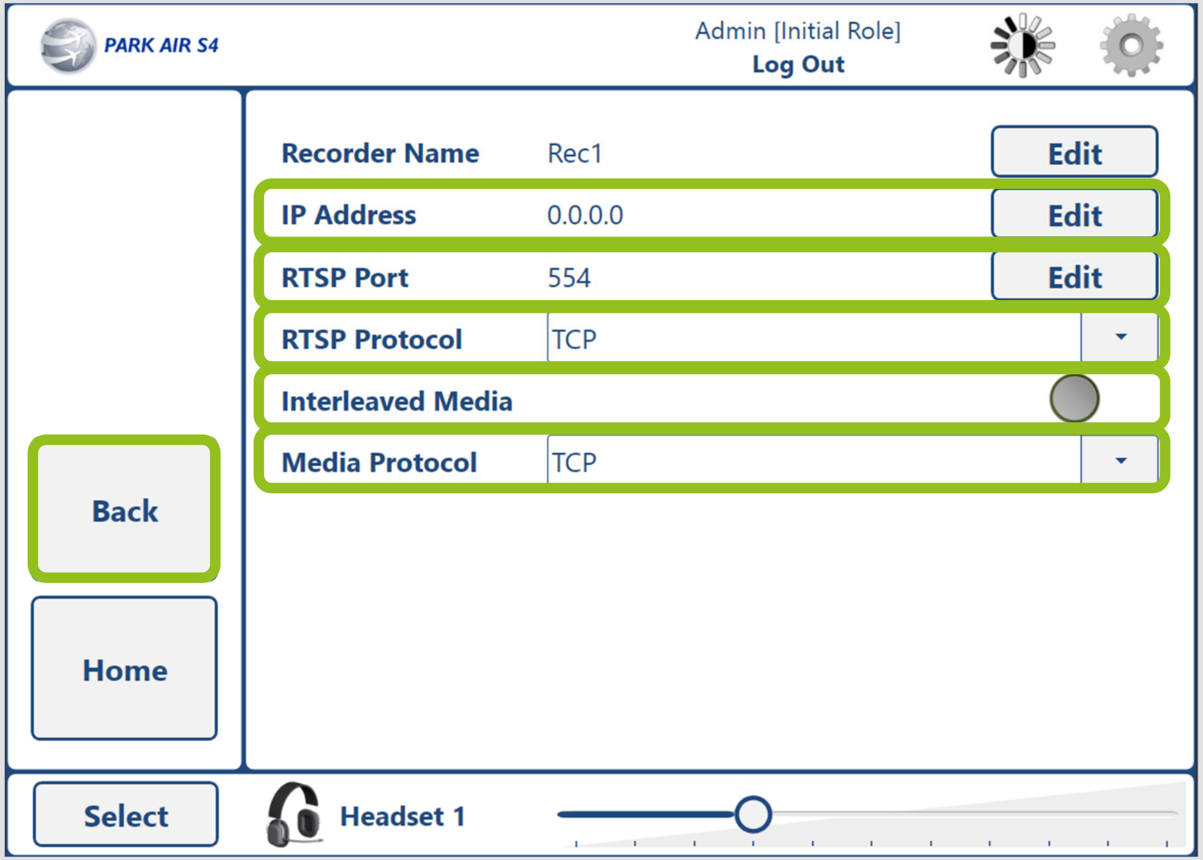
Recorders


PARK AIR S4
Admin [Initial Role]
Log Out
Add
Edit
Delete
Back
Home
Select
Headset 1

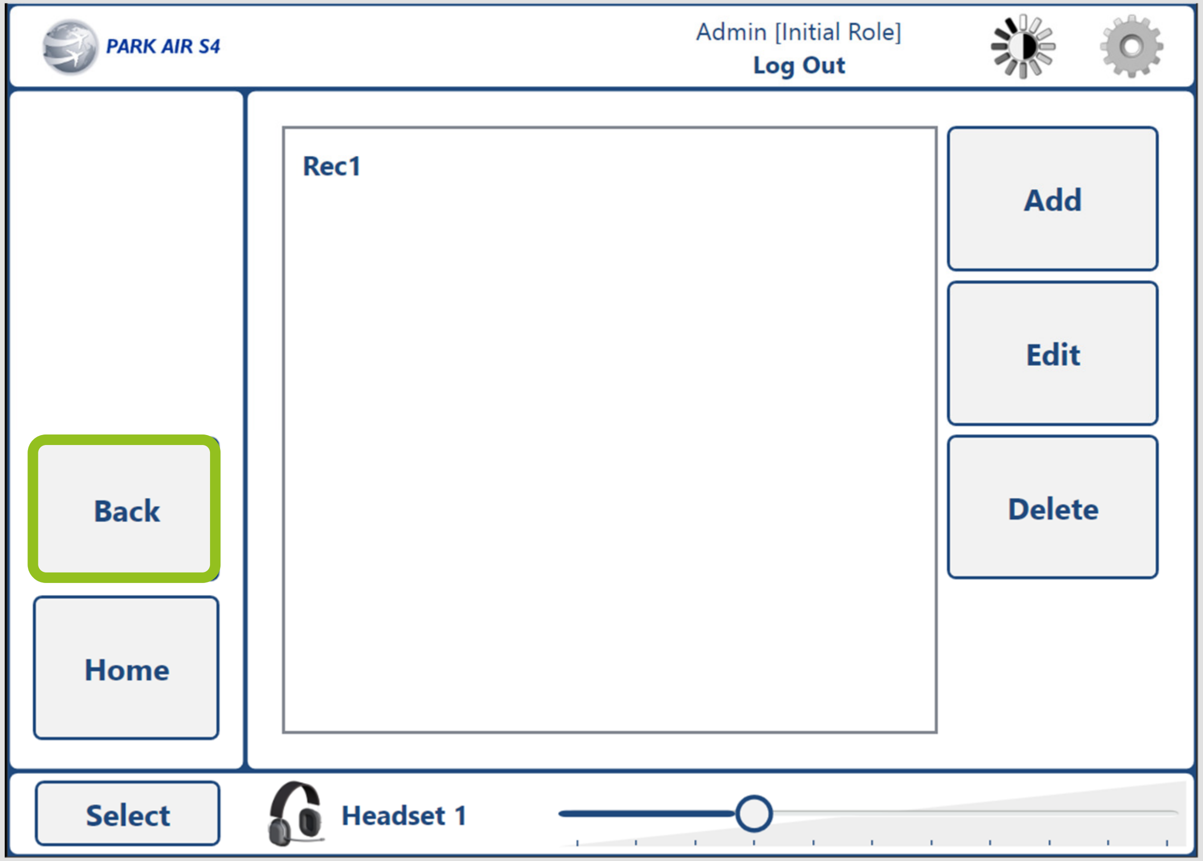
Recorders


Admin [Initial Role]
Logout
Add Recorder
Rec1
! ' - _ % ~ . * ( )
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
Shift
Space
BkSp
C
Enter
Add
Edit
Delete
Back
Home
Select
Headset 1

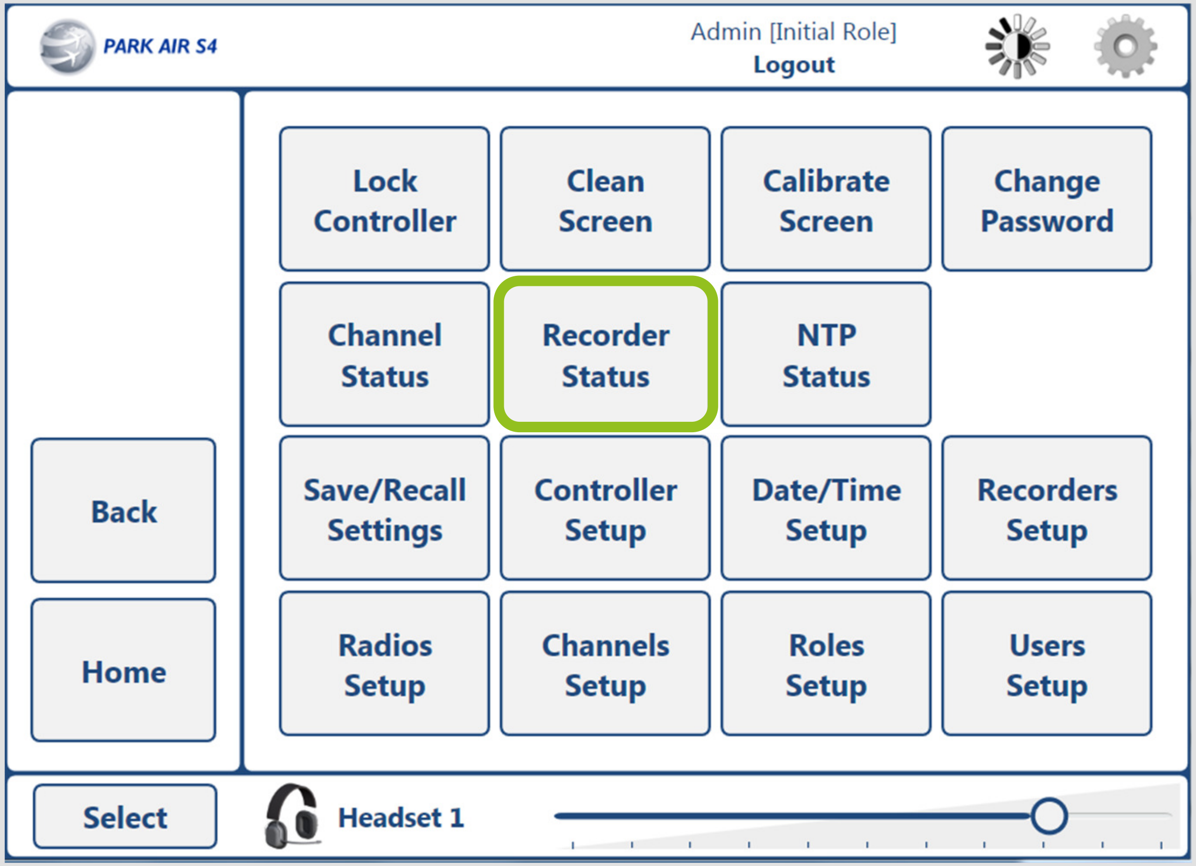
Recorders


PARK AIR S4
Admin [Initial Role]
Log Out
Recorder Name
Rec1
Edit
IP Address
0.0.0.0
Edit
RTSP Port
554
Edit
RTSP Protocol
TCP
Interleaved Media
Media Protocol
TCP
Back
Home
Select
Headset 1

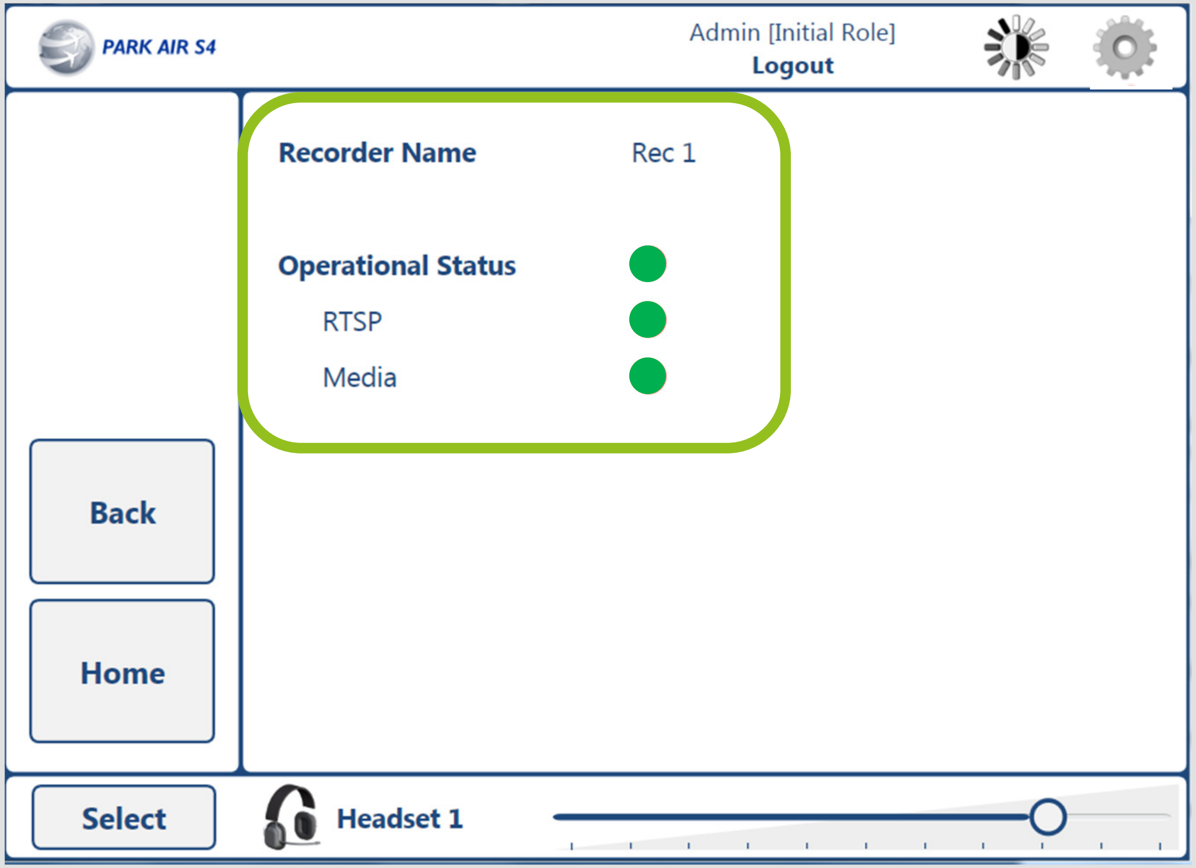
Recorders


PARK AIR S4
Admin [Initial Role]
Log Out
Rec1
Add
Edit
Delete
Back
Home
Select
Headset 1

Recorders

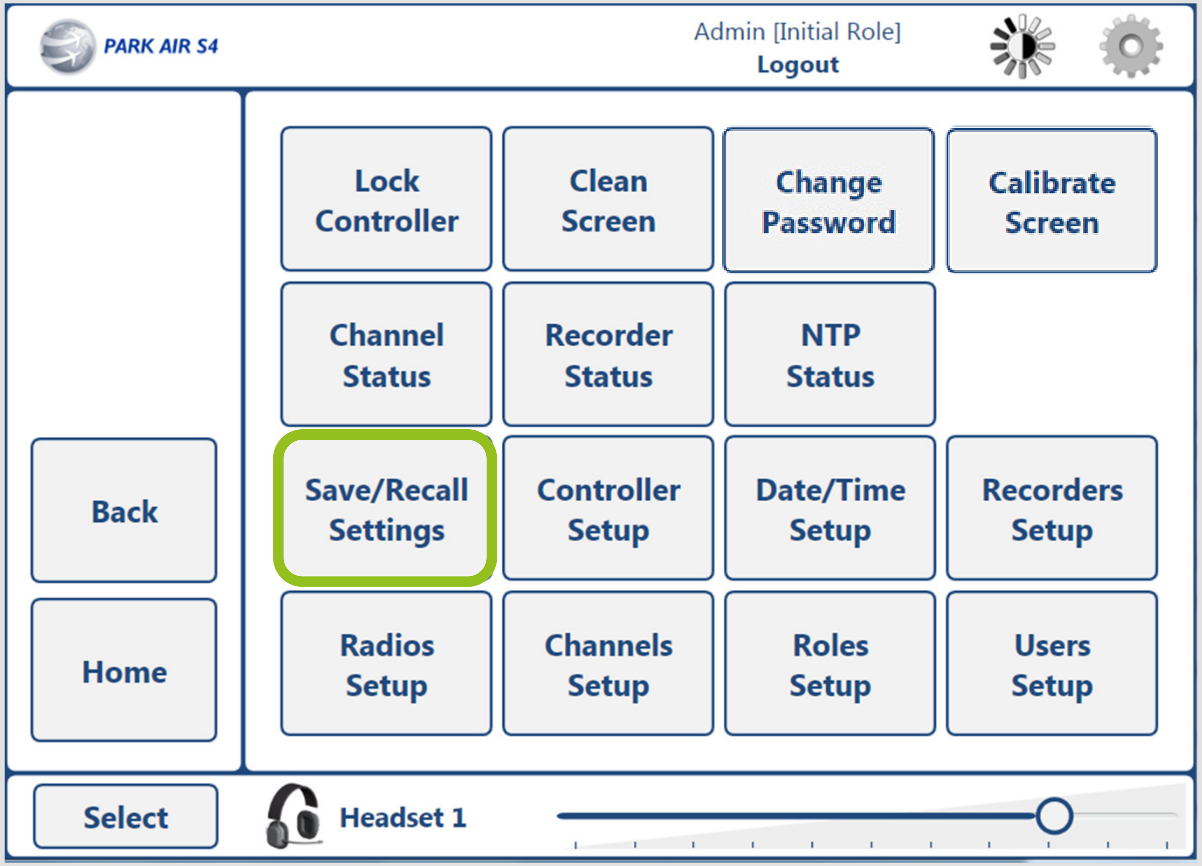

PARK AIR S4
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Calibrate Screen
Change Password
Channel Status
Recorder Status
NTP Status
Back
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Home
Radios Setup
Channels Setup
Roles Setup
Users Setup
Select
Headset 1

Recorders

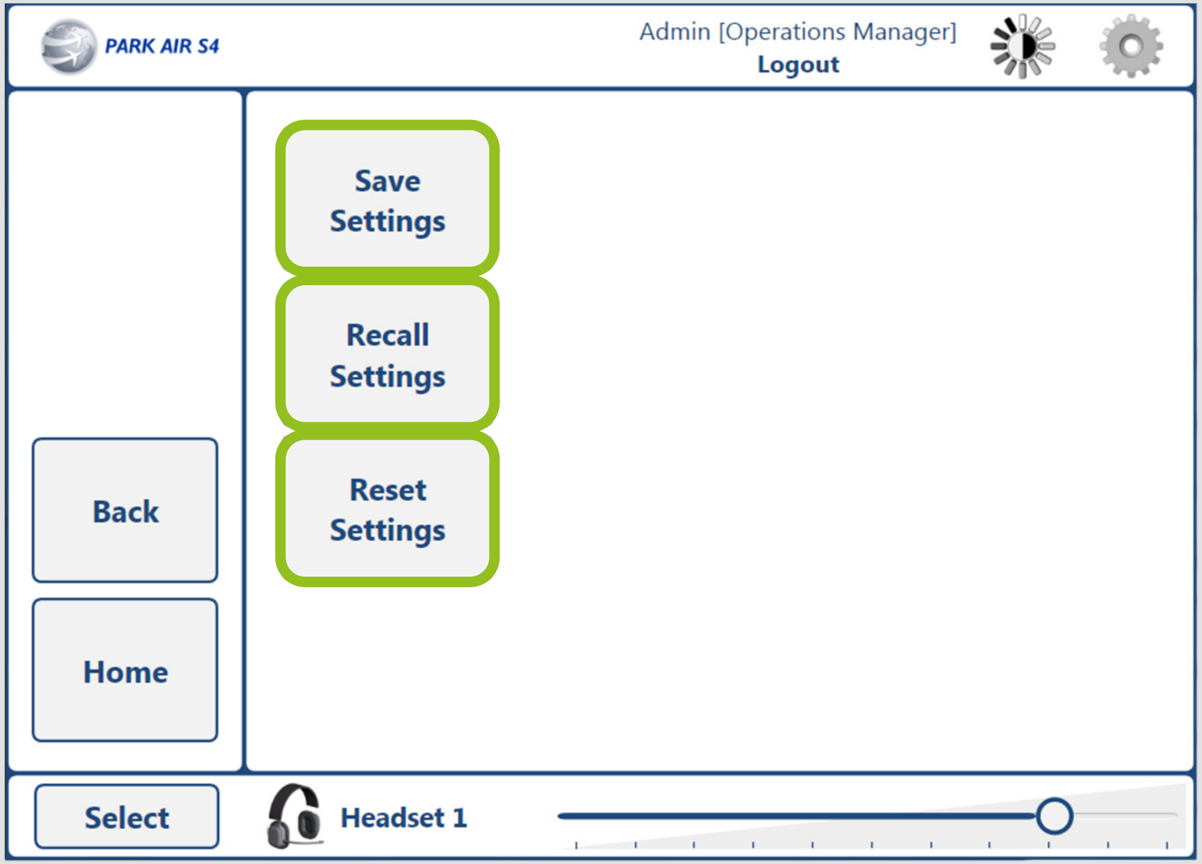

PARK AIR S4
Admin [Initial Role]
Logout
Recorder Name
Rec 1
Operational Status
RTSP
Media
Back
Home
Select
Headset 1

Save / Recall Settings

Save, recall and reset settings



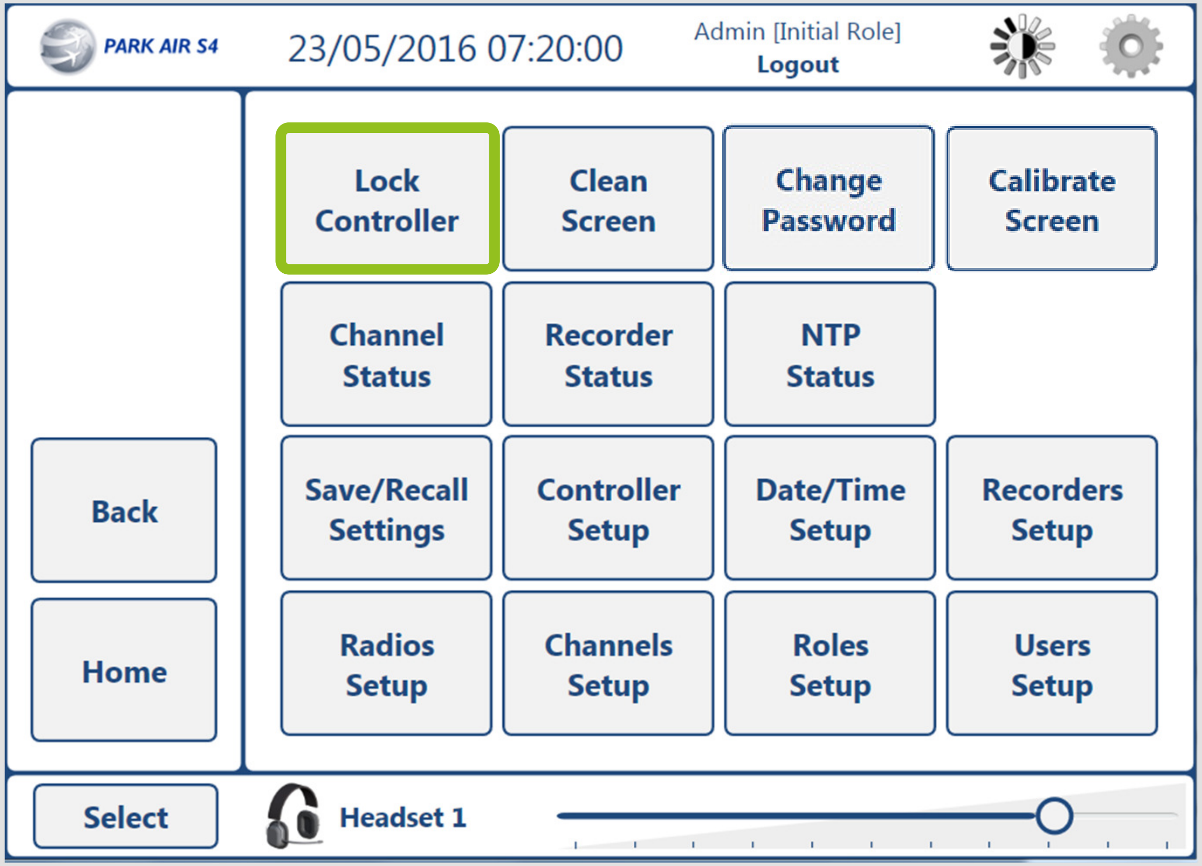
Save, recall and reset settings



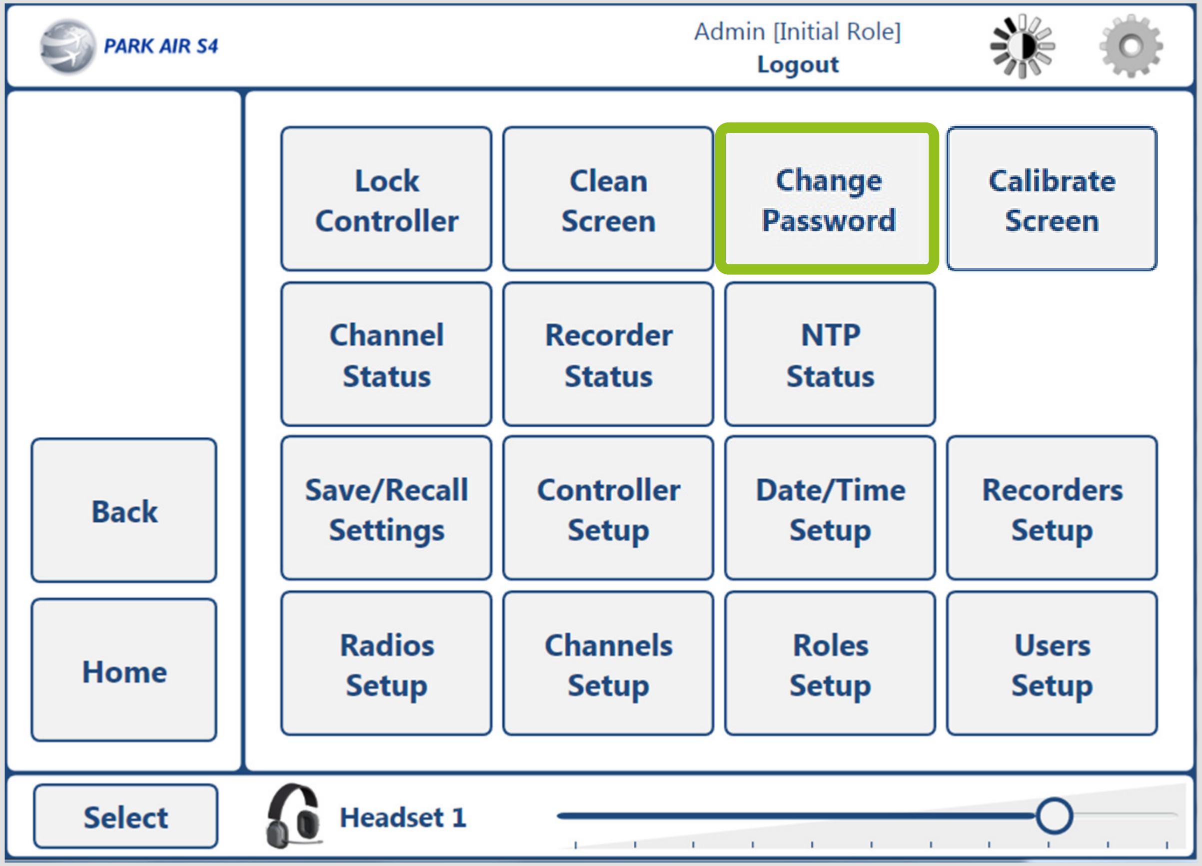
4

General Settings

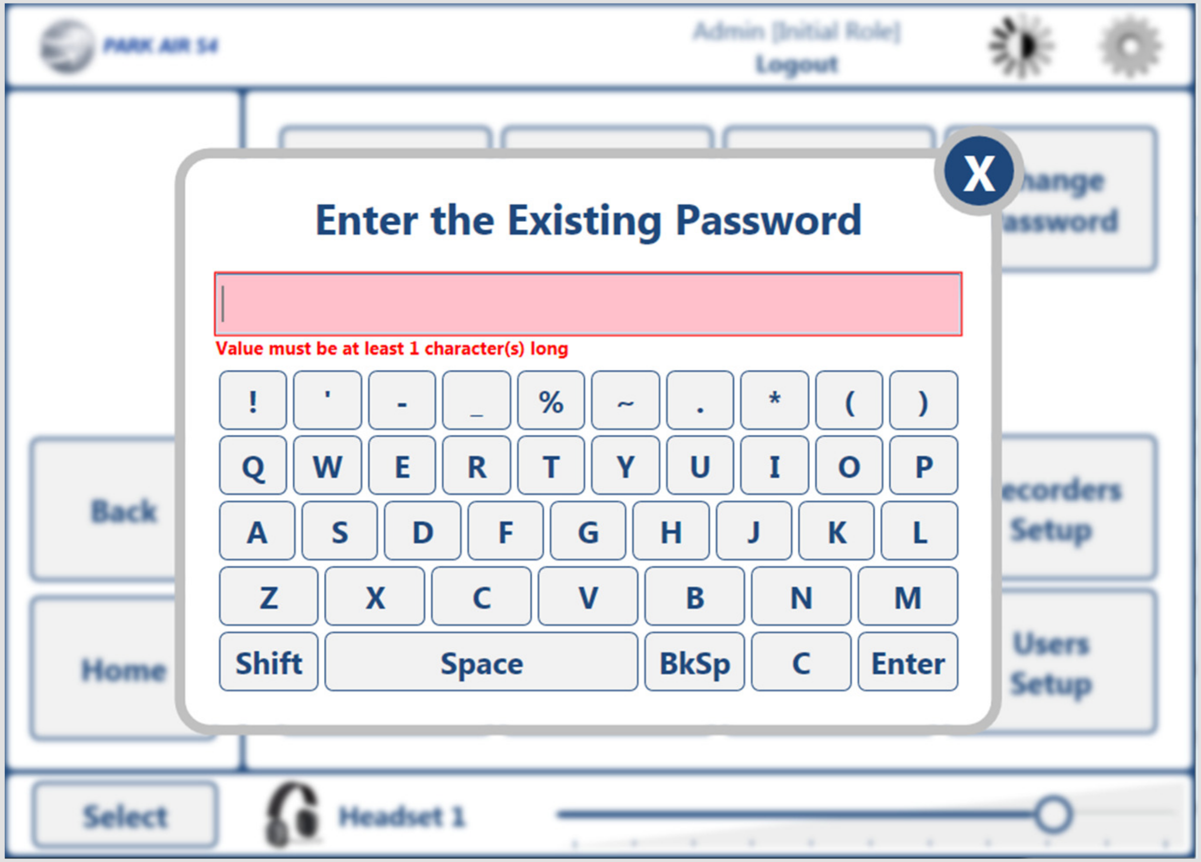
Lock controller



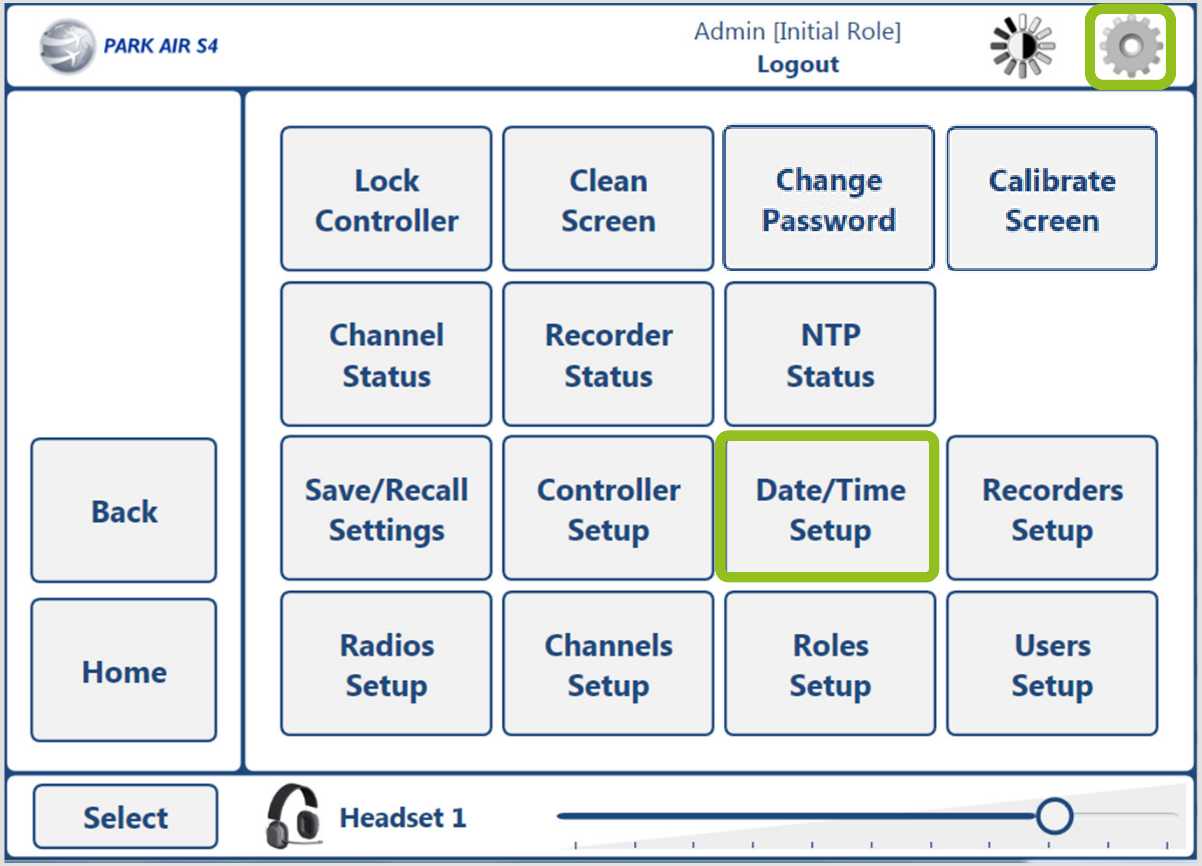
Change password



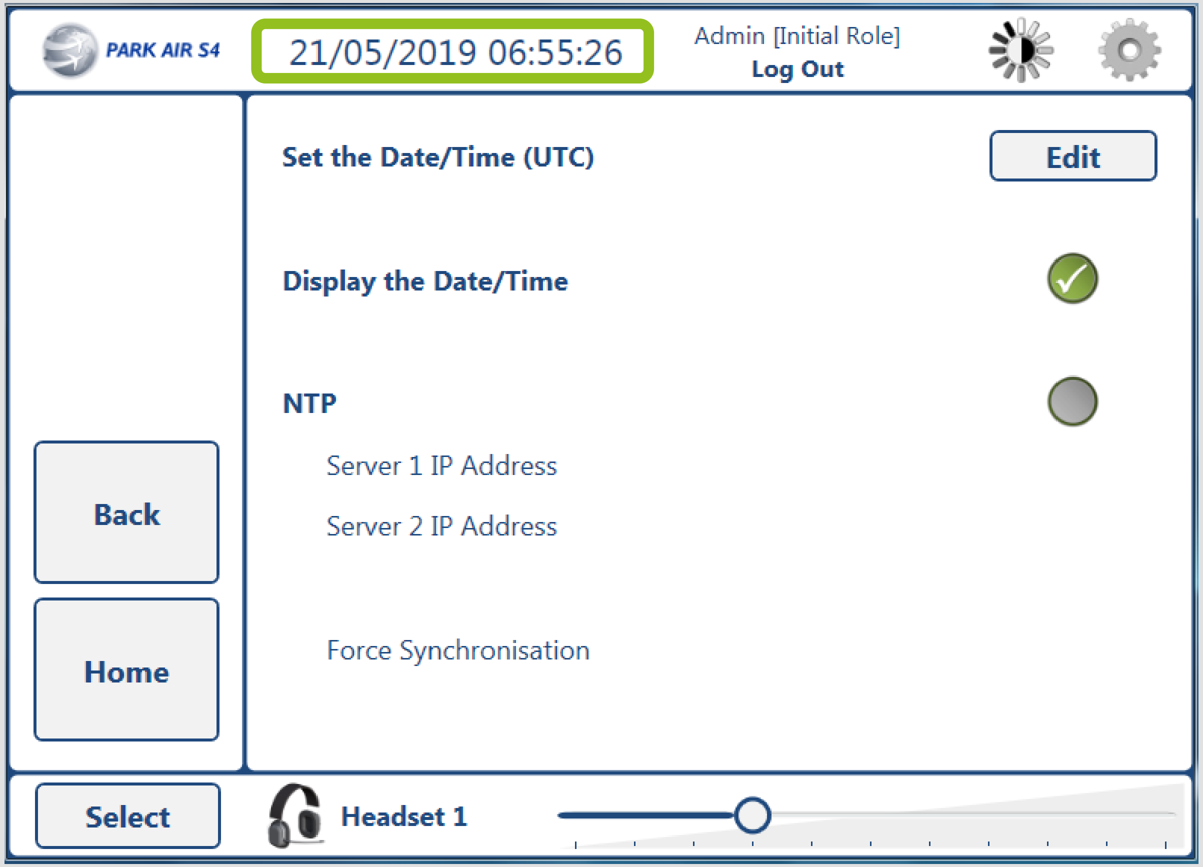
Change password



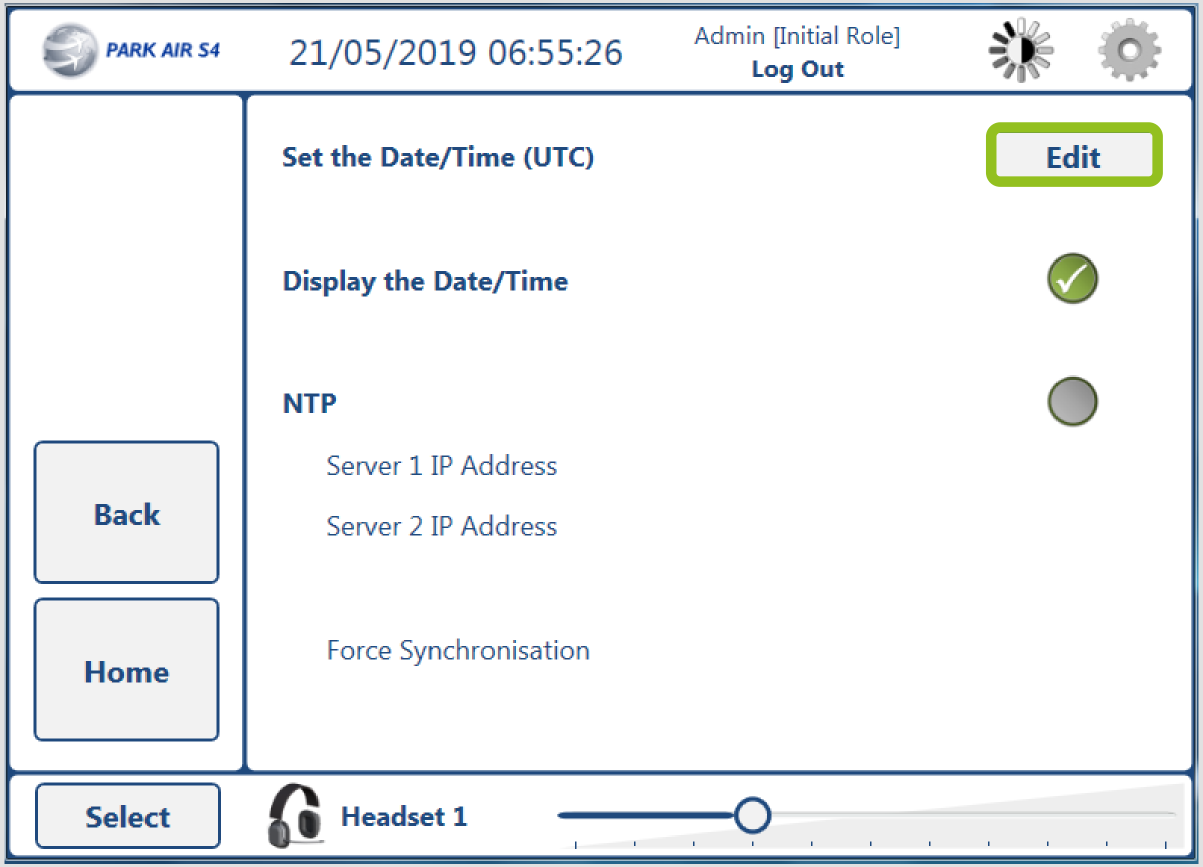
Date and time settings



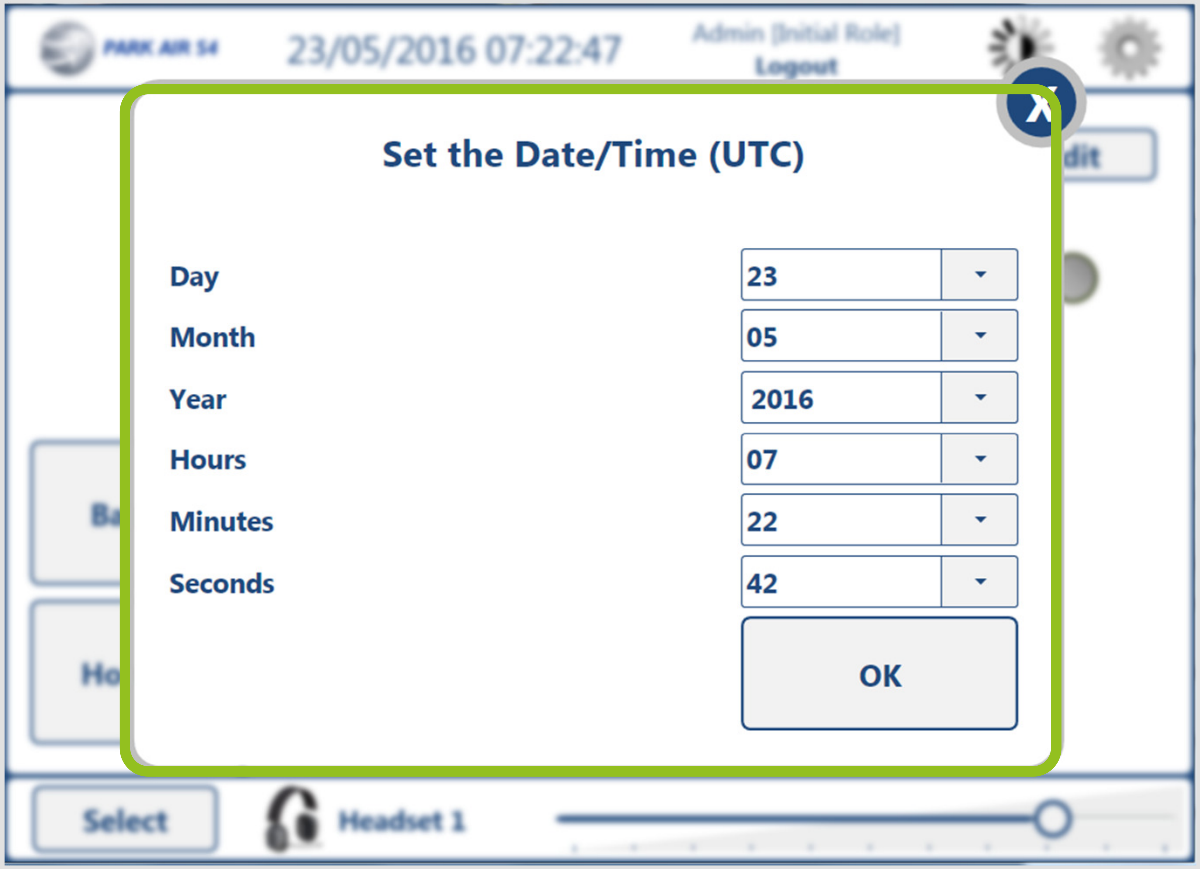
Date and time settings



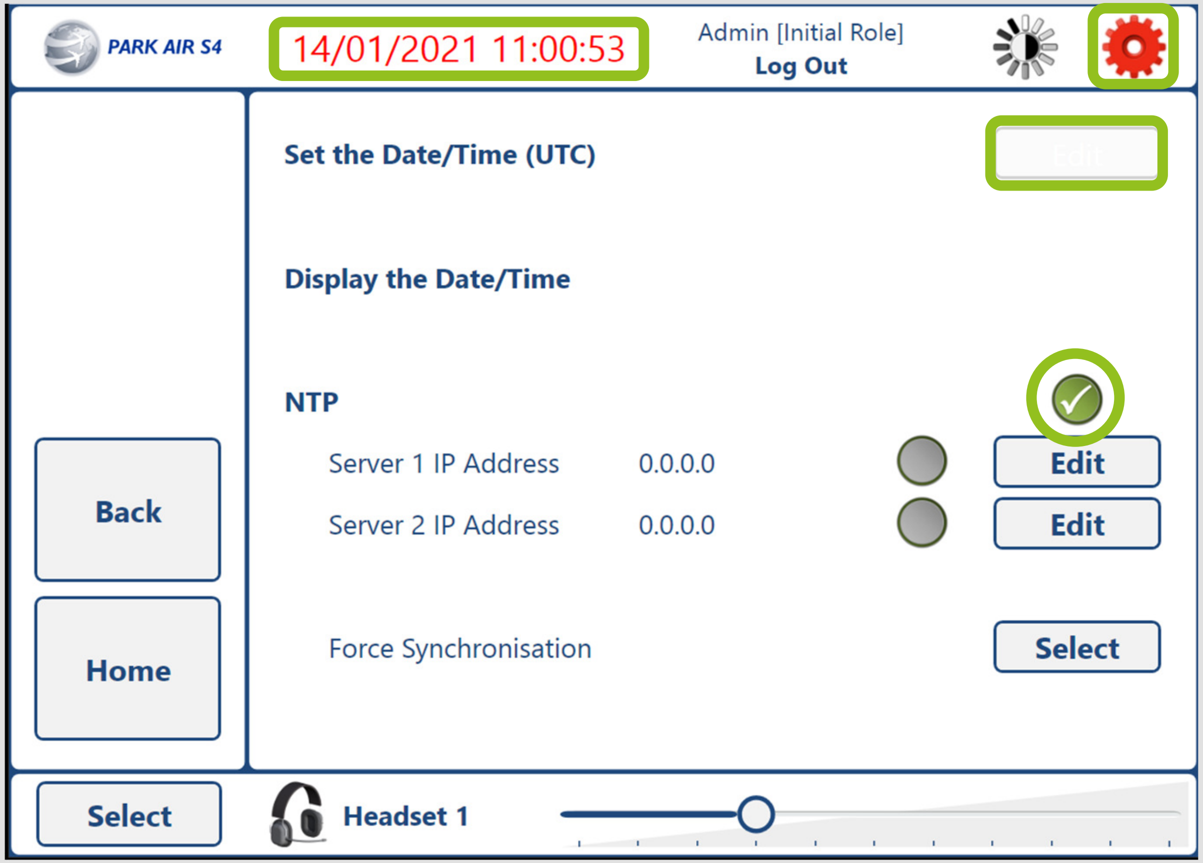
Date and time settings



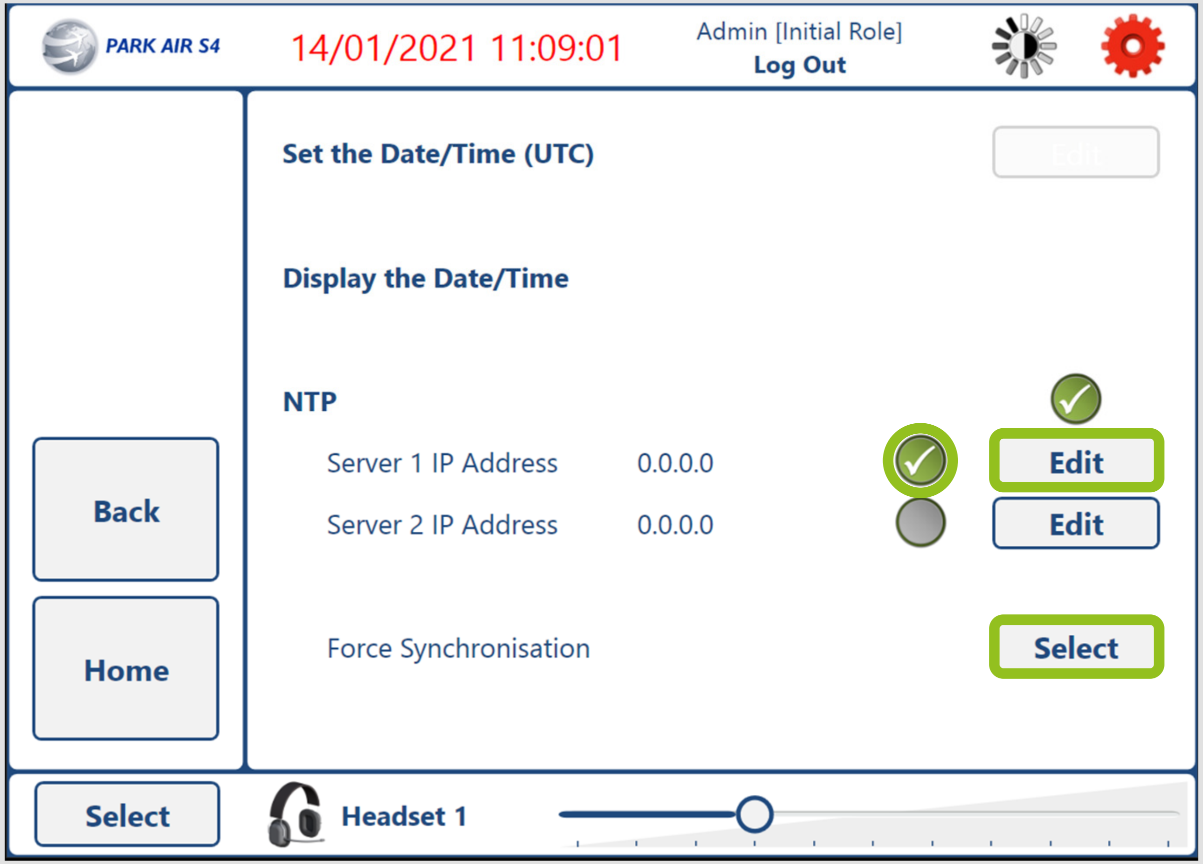
Date and time settings



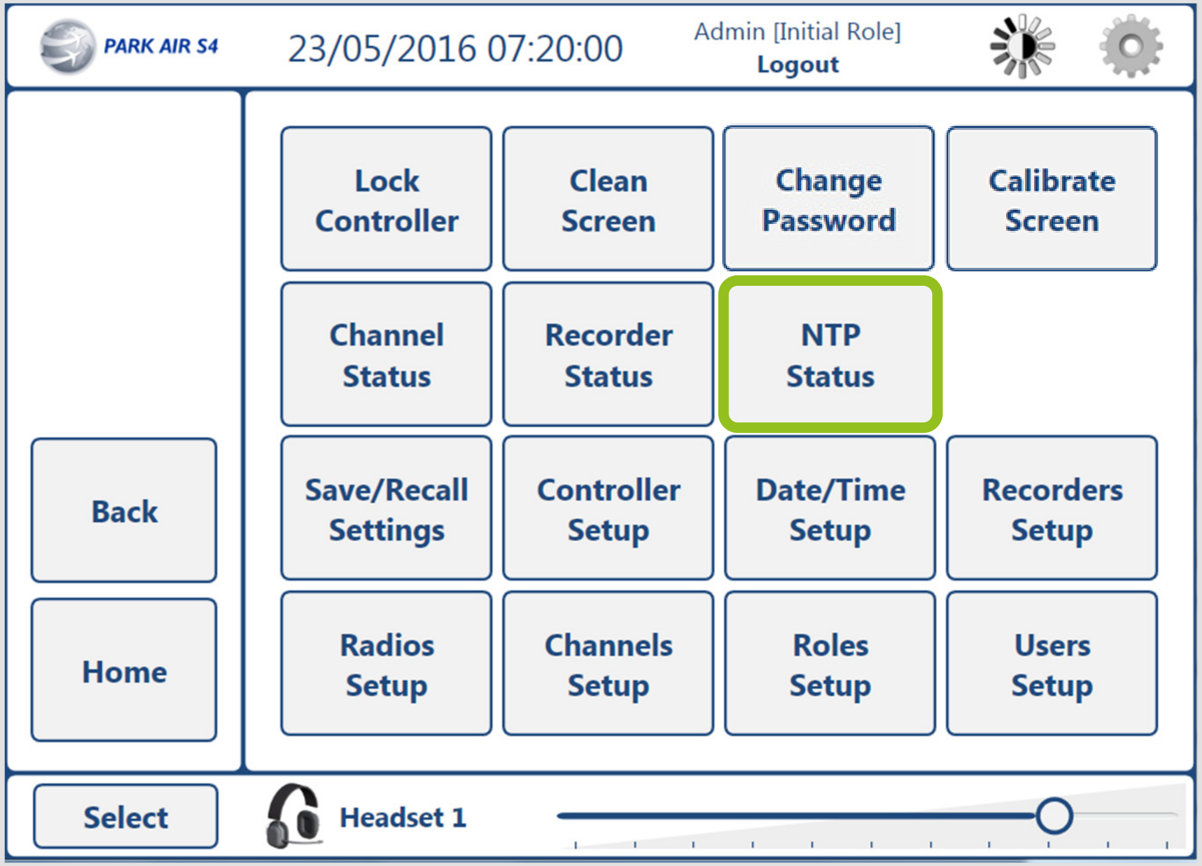
Network Time Protocol (NTP)



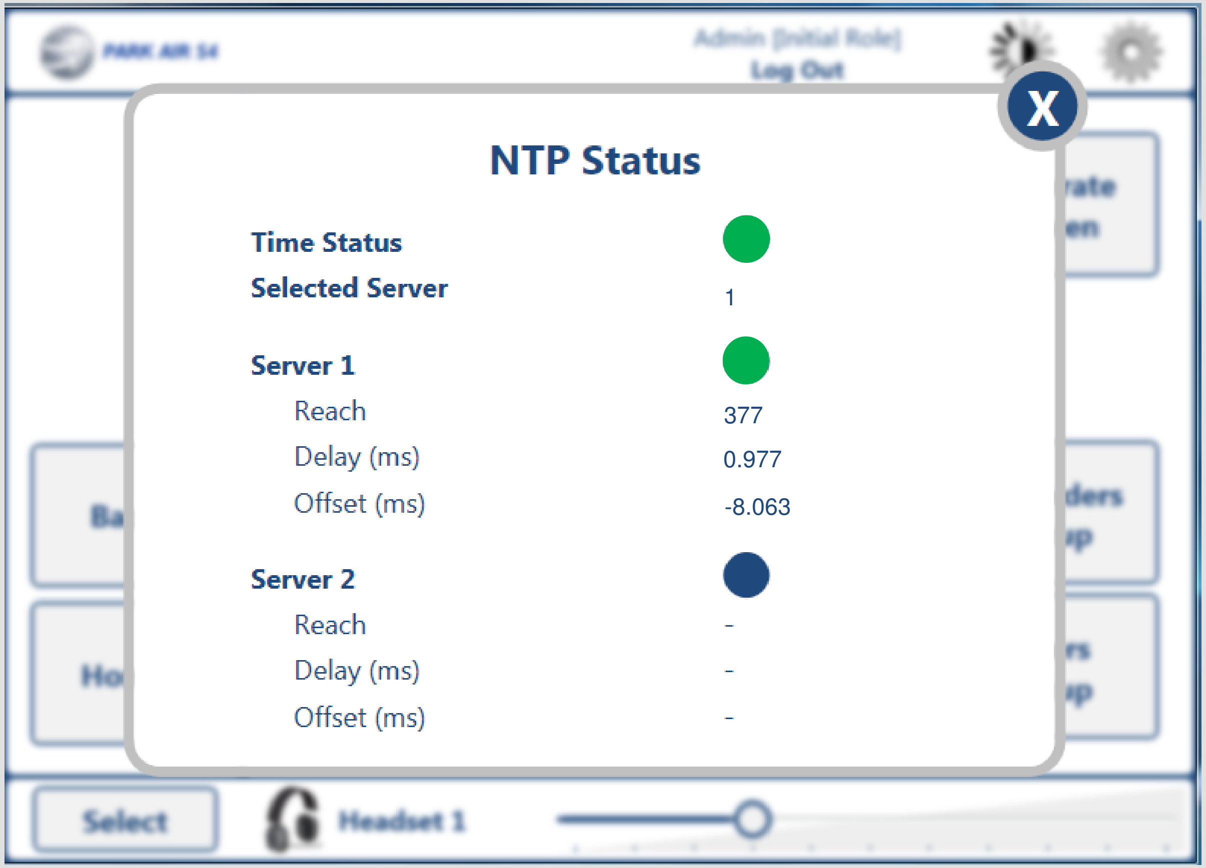
Network Time Protocol (NTP)



NTP status


PARK AIR S4
23/05/2016 07:20:00
Admin [Initial Role]
Logout
Lock Controller
Clean Screen
Change Password
Calibrate Screen
Channel Status
Recorder Status
NTP Status
Save/Recall Settings
Controller Setup
Date/Time Setup
Recorders Setup
Radios Setup
Channels Setup
Roles Setup
Users Setup
Back
Home
Select
Headset 1

NTP status


NTP Status
Time Status
Selected Server
1
Server 1
Reach
377
Delay (ms)
0.977
Offset (ms)
-8.063
Server 2
Reach
-
Delay (ms)
-
Offset (ms)
-
X

NTP Reach

- Reach is the NTP history number sequence
- 8 bits in the following groups 00,000,000
- Bits move right to left
- 00,000,001 = 1 (one successful update)
- 00,000,011 = 3 (two successful updates)
- 0, 1, 3, 7, 17, 37, 77, 177, 377 sequence on each successful update
- 11,111,111 = 377 all 8 previous updates successful
- 01,111,011 = 173 six successful updates, two failed

Park Air S4 IP Controller

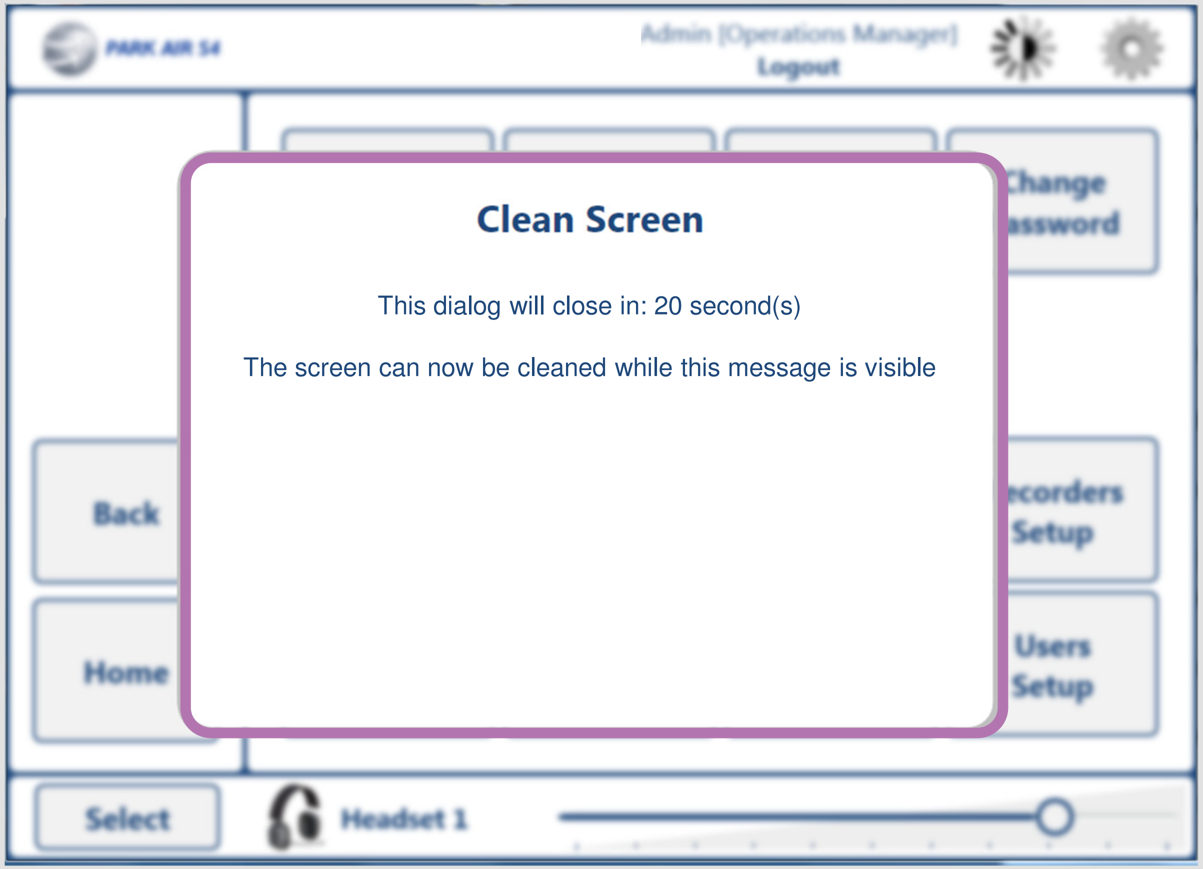
V5-O-S4IPC-EL Issue 1

Park Air S4 IP Controller

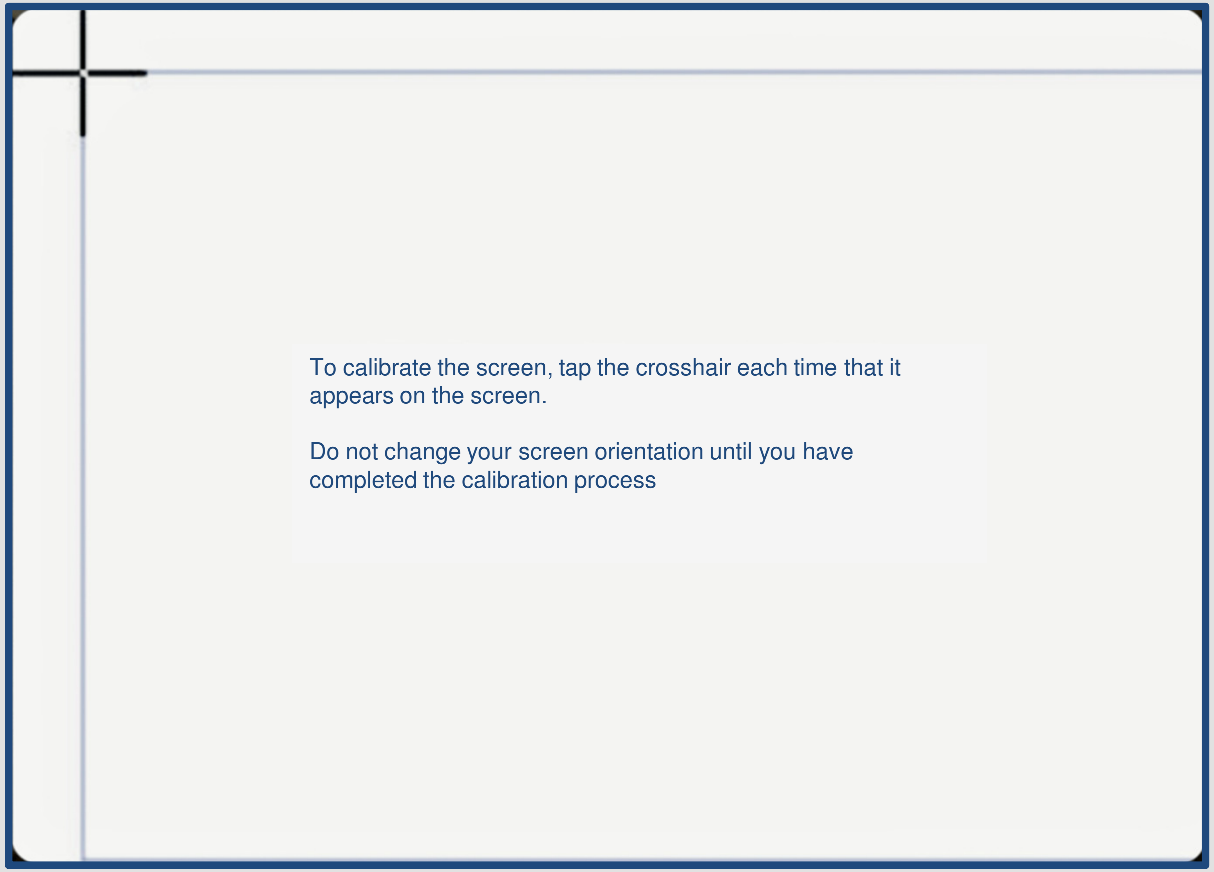
V5-O-S4IPC-EL Issue 1

Maintenance

Cleaning the screen



Calibrating the screen



Checking software version

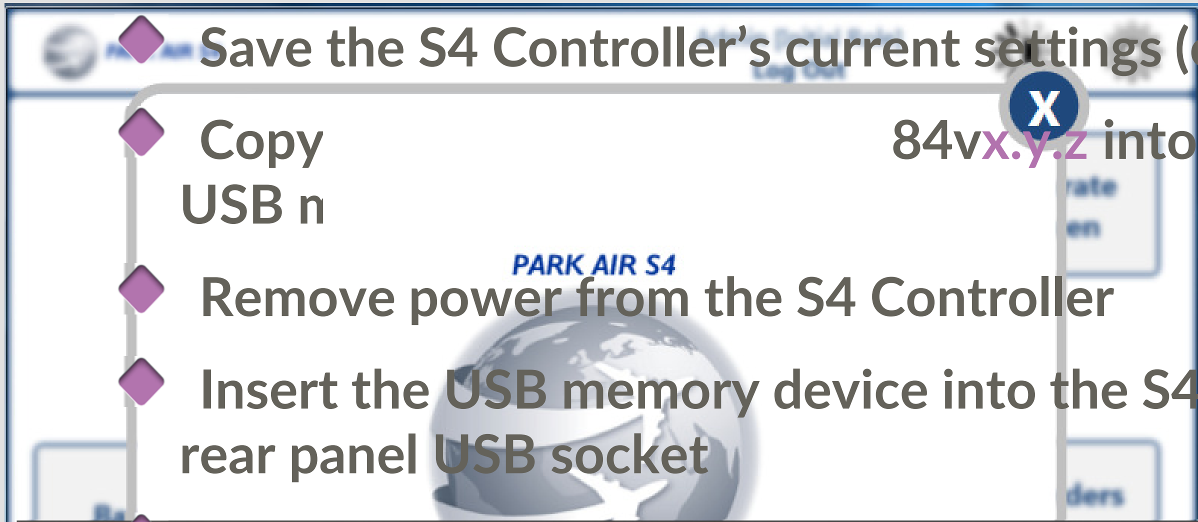


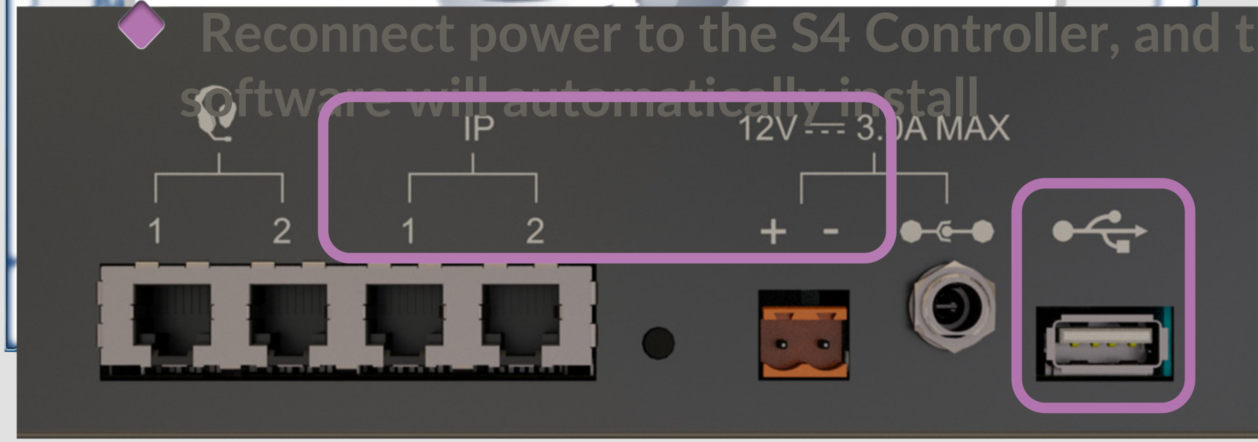
Checking software version



Software update

- Save the S4 Controller's current settings (optional)
- Copy 84vx.y.z into the root of a USB n
- Remove power from the S4 Controller
- Insert the USB memory device into the S4 Controller's rear panel USB socket
- Reconnect power to the S4 Controller, and the new software will automatically install





Park Air S4 IP Controller

V5-O-S4IPC-EL Issue 1